

PONY

Maths

BOOK 3

Part 2



This book belongs to

.....

.....



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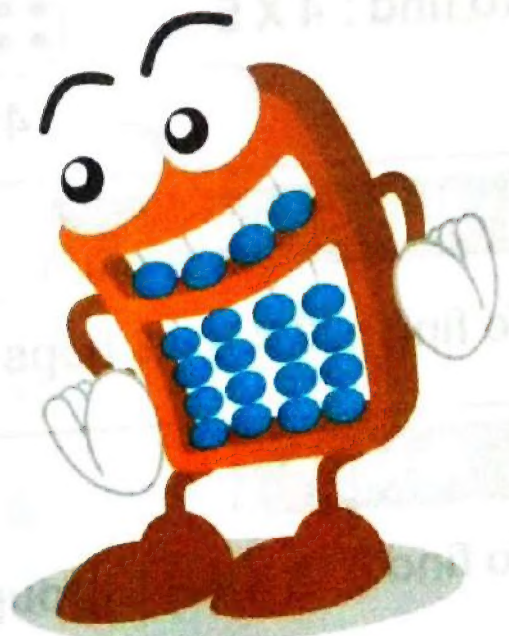
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# CHAPTER

# One





LESSON

1

# Properties of Multiplication

## REMEMBER

Multiplication is a repeated addition

$$5 + 5 + 5 + 5 + 5 + 5 = 6 \times 5 = 30$$

$$6 + 6 + 6 + 6 + 6 = 5 \times 6 = 30$$

## Multiplication Strategies

### 1 Repeated Addition

To find :  $7 \times 3$

We add 3 , 7 times :  $3 + 3 + 3 + 3 + 3 + 3 + 3 = 21$

or we add 7 , 3 times :  $7 + 7 + 7 = 21$

### 2 Sets Circle and Dots

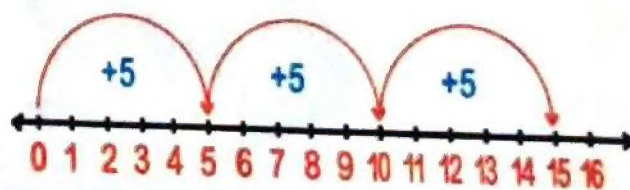
To find :  $4 \times 5$



$$4 + 4 + 4 + 4 + 4 = 20$$

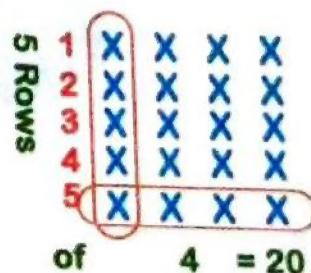
### 3 Number lines

To find :  $3 \times 5 = 3$  hops of 5



### 4 Array

To find :  $5 \times 4 = 5$  groups of 4  
5 rows of 4



### 5 Fact Family

If I know  $7 \times 6 = 42$  Then I know

$$6 \times 7 = 42$$

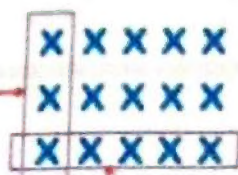
$$42 \div 7 = 6$$

$$42 \div 6 = 7$$



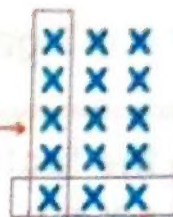
# Multiplication Properties

## 1 Commutative Property



3 rows , 5 in each row

$$3 \times 5 = 15$$



5 rows , 3 in each row

$$5 \times 3 = 15$$

So,  $3 \times 5 = 5 \times 3$  (Commutative Property)

1 Complete as in the example :

EX  $5 + 5 + 5 + 5 + 5 + 5 = 30$  so,  $5 \times 6 = 30$  and  $6 \times 5 = 30$

a  $3 + 3 + 3 + 3 + 3 + 3 = \dots$  so,  $\dots \times \dots = \dots$

and  $\dots \times \dots = \dots$

b  $4 + 4 + 4 + 4 + 4 = \dots$  so,  $\dots \times \dots = \dots$

and  $\dots \times \dots = \dots$

c  $6 + 6 + 6 = \dots$  so,  $\dots \times \dots = \dots$

and  $\dots \times \dots = \dots$

d  $2 + 2 + 2 + 2 = \dots$  so,  $\dots \times \dots = \dots$

and  $\dots \times \dots = \dots$

e  $7 \times 4 = \dots + \dots + \dots + \dots + \dots + \dots + \dots$

f  $7 \times 4 = \dots + \dots + \dots + \dots + \dots + \dots + \dots$

g  $5 \times 8 = \dots + \dots + \dots + \dots + \dots + \dots + \dots + \dots$



## Factors of a Number

Factors are the numbers that are multiplied to  
get a given number

**Ex** Find the factors of 12 :

$$12 = 1 \times 12$$

$$12 = 2 \times 6$$

$$12 = 3 \times 4$$

The factors of 12 are  
1, 2, 3, 4, 6 and 12

### 2 Write the factors of :

**a**  $7 = \dots \times \dots$

The factors  
of 7 are :

.....  
= .....

**b**  $15 = \dots \times \dots$

$$15 = \dots \times \dots$$

The factors  
of 15 are :

.....  
= .....

**c**  $18 = \dots \times \dots$

$$18 = \dots \times \dots$$

$$18 = \dots \times \dots$$

The factors  
of 18 are :

.....  
= .....

## 2 Associative Property

**Ex** To find  $3 \times 5 \times 2$  (We can do this in two ways)

First way :  $\Rightarrow 3 \times 5 \times 2 = (3 \times 5) \times 2 = 15 \times 2 = 30$

Second way :  $\Rightarrow 3 \times 5 \times 2 = 3 \times (5 \times 2) = 3 \times 10 = 30$

Notice : that we multiply  
what's inside the parentheses first

So  $(3 \times 5) \times 2 = 3 \times (5 \times 2)$   
( Associative Property )



- 3** Write two multiplication equations, using parentheses to show the order you will multiply in. (As in the example)

**Ex**  $3 \times 2 \times 5$  : **First equation** :  $(3 \times 2) \times 5 = 6 \times 5 = 30$

**Second equation** :  $3 \times (2 \times 5) = 3 \times 10 = 30$

**a**  $2 \times 5 \times 6$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**b**  $3 \times 5 \times 4$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**c**  $3 \times 2 \times 10$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**d**  $2 \times 4 \times 10$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

- 4** Kamal brought home 2 boxes filled with bags of apples. Each box had 3 bags with 5 apples in each. How many total apples did Kamal bring home? Write an equation and solve.



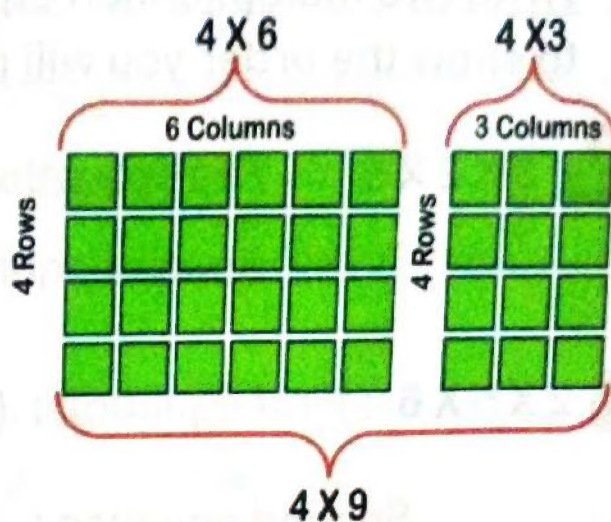


### 3 Distributive Property

To find :  $4 \times 9$

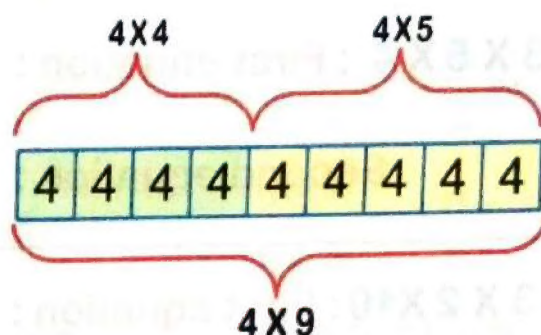
#### Array Strategy

$$\begin{aligned} 4 \times 9 &= 4 \times (6 + 3) \\ &= (4 \times 6) + (4 \times 3) \\ &= 24 + 12 = 36 \end{aligned}$$



#### Bar Model Strategy

$$\begin{aligned} 4 \times 9 &= 4 \times (4 + 5) \\ &= (4 \times 4) + (4 \times 5) \\ &= 16 + 20 = 36 \end{aligned}$$



- 5** Use the distributive property of multiplication to find  
Produce each of the following using a bar model strategy  
in a different way.

**a**



$$\begin{aligned} 6 \times 8 &= 6 \times (\dots + \dots) \\ &= (6 \times \dots) + (6 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$



$$\begin{aligned} 6 \times 8 &= 6 \times (\dots + \dots) \\ &= (6 \times \dots) + (6 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

**b**



$$\begin{aligned} 5 \times 12 &= 5 \times (\dots + \dots) \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$



$$\begin{aligned} 5 \times 12 &= 5 \times (\dots + \dots) \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$



## 1 Complete :

- a**  $5 + 5 + 5 + 5 =$  ..... so,  $X =$  ..... and  $X =$  .....
- b**  $4 + 4 + 4 + 4 + 4 =$  ..... so,  $X =$  ..... and  $X =$  .....
- c**  $6 + 6 =$  ..... so,  $X =$  ..... and  $X =$  .....
- d**  $2 + 2 + 2 + 2 + 2 + 2 =$  ..... so,  $X =$  ..... and  $X =$  .....
- e**  $3 + 3 + 3 + 3 + 3 =$  ..... so,  $X =$  ..... and  $X =$  .....
- f**  $5 + 5 + 5 =$  ..... so,  $X =$  ..... and  $X =$  .....
- g**  $1 + 1 + 1 + 1 + 1 =$  ..... so,  $X =$  ..... and  $X =$  .....
- h**  $7 + 7 =$  ..... so,  $X =$  ..... and  $X =$  .....
- i**  $8 + 8 + 8 =$  ..... so,  $X =$  ..... and  $X =$  .....
- j**  $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 =$  .....  
so,  $X =$  ..... and  $X =$  .....
- k**  $5 \times 4 =$  ..... + ..... + ..... + ..... + .....
- l**  $6 \times 2 =$  ..... + ..... + ..... + ..... + ..... + .....
- m**  $8 \times 3 =$  ..... + ..... + .....
- n**  $6 \times 5 =$  ..... + ..... + ..... + ..... + ..... + .....
- o**  $6 \times 5 =$  ..... + ..... + ..... + ..... + ..... + ..... + .....
- p**  $4 \times 7 =$  ..... + ..... + ..... + ..... + ..... + ..... + ..... + .....
- q**  $4 \times 7 =$  ..... + ..... + ..... + .....
- r**  $5 \times 5 =$  ..... + ..... + ..... + ..... + .....



**2 Write the factors of :**

**a**  $5 = \dots \times \dots$

The factors  
of **5** are :

.....  
.....

**b**  $14 = \dots \times \dots$

$= \dots \times \dots$

The factors  
of **14** are :

.....  
.....

**c**  $12 = \dots \times \dots$

$= \dots \times \dots$

$= \dots \times \dots$

The factors  
of **12** are :

.....  
.....

**d**  $11 = \dots \times \dots$

The factors  
of **11** are :

.....  
.....

**e**  $8 = \dots \times \dots$

$= \dots \times \dots$

The factors  
of **8** are :

.....  
.....

**f**  $16 = \dots \times \dots$

$= \dots \times \dots$

$= \dots \times \dots$

The factors  
of **16** are :

.....  
.....

**3 Write two multiplication equations, using parentheses to show the order you will multiply in. (As in the example)**

**a**  $2 \times 3 \times 4$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**b**  $2 \times 3 \times 5$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**c**  $2 \times 5 \times 4$  : **First equation** :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

**Second equation** :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$



**d**  $2 \times 5 \times 10$ : First equation :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

Second equation :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**e**  $3 \times 3 \times 10$ : First equation :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

Second equation :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**f**  $5 \times 3 \times 10$ : First equation :  $(\dots \times \dots) \times \dots = \dots \times \dots = \dots$

Second equation :  $\dots \times (\dots \times \dots) = \dots \times \dots = \dots$

**4** Circle the equations that have the same values as:

**a**  $(2 \times 4) \times 5$  [  $2 \times (4 \times 5)$  or  $8 \times 5$  or  $6 \times 5$  ]

**b**  $(7 \times 3) \times 4$  [  $21 \times 4$  or  $10 \times 4$  or  $7 \times 12$  or  $7 \times 7$  ]

**c**  $6 \times (3 \times 5)$  [  $3 \times 15$  or  $6 \times 15$  or  $18 \times 5$  or  $6 \times 8$  ]

**d**  $15 \times 2$  [  $3 \times (5 \times 2)$  or  $(3 \times 5) \times 2$  or  $4 \times 10$  ]

**e**  $12 \times 7$  [  $(6 \times 6) \times 7$  or  $(3 \times 4) \times 7$  or  $3 \times 28$  ]

**5** Kamal brought home 3 boxes filled with bags of apples.

Each box had 3 bags with 5 apples in each.

How many total apples did Kamal bring home? Write an equation and solve.

.....  
.....  
.....





- 6** To bring new basketballs to a sports center, two trucks have arrived with 10 boxes each. Inside each box, there are 5 basketballs. How many basketballs have reached the sports center? Write an equation and solve it.



- 7** Use the distributive property of multiplication to find Produce each of the following using a bar model strategy in a different way.

**a**

6	6	6	6	6	6	6	6
---	---	---	---	---	---	---	---

$$\begin{aligned} 6 \times 8 &= 6 \times (\dots + \dots) \\ &= (6 \times \dots) + (6 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

6	6	6	6	6	6	6	6
---	---	---	---	---	---	---	---

$$\begin{aligned} 6 \times 8 &= 6 \times (\dots + \dots) \\ &= (6 \times \dots) + (6 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

**b**

3	3	3	3	3	3	3	3	3	3	3	3
---	---	---	---	---	---	---	---	---	---	---	---

$$\begin{aligned} 3 \times 12 &= 3 \times (\dots + \dots) \\ &= (3 \times \dots) + (3 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

3	3	3	3	3	3	3	3	3	3	3	3	3
---	---	---	---	---	---	---	---	---	---	---	---	---

$$\begin{aligned} 3 \times 12 &= 3 \times (\dots + \dots) \\ &= (3 \times \dots) + (3 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

**c**


7	7	7	7	7	7	7	7	7	7
---	---	---	---	---	---	---	---	---	---

$$\begin{aligned} 7 \times 10 &= 7 \times (\dots + \dots) \\ &= (7 \times \dots) + (7 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

7	7	7	7	7	7	7	7	7	7
---	---	---	---	---	---	---	---	---	---

$$\begin{aligned} 7 \times 10 &= 7 \times (\dots + \dots) \\ &= (7 \times \dots) + (7 \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$




**d** 

$$9 \times 15 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$


$$= \dots + \dots = \dots$$



$$9 \times 15 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$


$$= \dots + \dots = \dots$$

**e** 

$$6 \times 13 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$


$$= \dots + \dots = \dots$$



$$6 \times 13 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$


$$= \dots + \dots = \dots$$

**f** 

$$8 \times 12 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$

$$= \dots + \dots = \dots$$



$$8 \times 12 = \dots \times (\dots + \dots)$$

$$= (\dots \times \dots) + (\dots \times \dots)$$

$$= \dots + \dots = \dots$$

**8** Complete the following:

**a**  $7 \times 13 = \dots \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$

$$= \dots + \dots = \dots$$

**b**  $8 \times 15 = \dots \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$

$$= \dots + \dots = \dots$$

**c**  $9 \times 13 = \dots \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$

$$= \dots + \dots = \dots$$

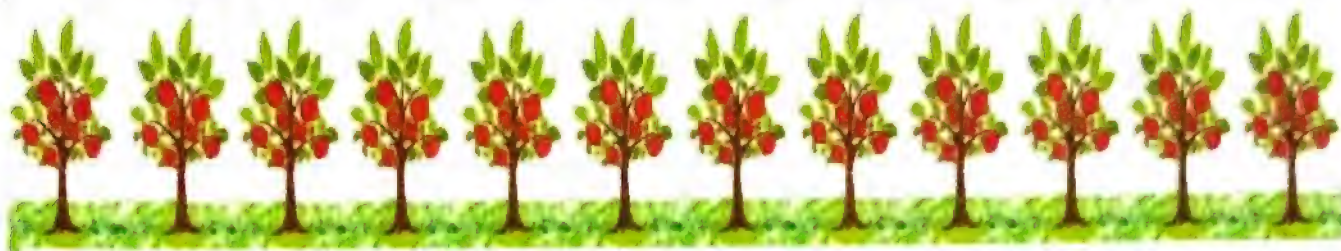
**d**  $7 \times 12 = \dots \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$

$$= \dots + \dots = \dots$$



- 9** Hossam went to the apple orchard. There were 12 apple trees, and each tree had 7 apples.

How many apples were there in all at the orchard?



Using the distributive property, solve this problem using:

$$12 \text{ sevens} = 10 \text{ sevens} + 2 \text{ sevens}$$

$$\begin{aligned} 12 \times 7 &= (\dots + \dots) \times 7 \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

- 10** Use the distribution property to find :

**a**  $7 \text{ threes} = 5 \text{ threes} + 2 \text{ threes}$

$$\begin{aligned} \dots \times \dots &= (\dots + \dots) \times \dots \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

**b**  $8 \text{ fours} = 5 \text{ fours} + 3 \text{ fours}$

$$\begin{aligned} \dots \times \dots &= (\dots + \dots) \times \dots \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$

**c**  $9 \text{ tens} = 6 \text{ tens} + 3 \text{ tens}$

$$\begin{aligned} \dots \times \dots &= (\dots + \dots) \times \dots \\ &= (\dots \times \dots) + (\dots \times \dots) \\ &= \dots + \dots = \dots \end{aligned}$$



## First Choose the correct answer

- a  $4 + 4 + 4 + 4 + 4 + 4 = \dots\dots\dots$  (  $4 + 6$  or  $3 + 8$  or  $3 \times 8$  )  
 b  $6 \times 3 = \dots\dots\dots$  (  $9 + 2$  or  $6 + 6 + 6$  or  $3 + 6$  )  
 c  $8 \times 15 = \dots\dots\dots$  (  $8 \times (10 \times 5)$  or  $8 \times (10 + 5)$  or  $8 \times (7 \times 8)$  )  
 d  $4 \times (3 \times 5) = \dots\dots\dots$  (  $(4 \times 3) \times 5$  or  $(4 + 3) + 5$  or  $4 \times 25$  )  
 e  $(3 \times 7) + (3 \times 6) = \dots\dots\dots$  (  $3 \times 15$  or  $3 \times 13$  or  $3 \times 42$  )

## Second Complete the following

- a  $4 \times 2 \times 5 = \dots \times (\dots \times \dots) = \dots \times \dots = \dots\dots\dots$   
 b  $5 \times 18 = \dots \times (\dots + \dots) = (\dots \times \dots) + (\dots \times \dots)$   
 $\quad \quad \quad = \dots + \dots = \dots\dots\dots$   
 c  $(4 \times 8) + (4 \times 2) = \dots \times (\dots + \dots) = \dots \times \dots = \dots\dots\dots$   
 d  $5 + 5 + 5 + 5 = \dots \times \dots = \dots\dots\dots$   
 e  $7 \times 6 = \dots + \dots\dots\dots$

## Third Answer the following

- a Join the equal equation :

$$(3 \times 5) \times 4$$

$$7 \times (5 + 9)$$

$$9 \times (2 \times 5)$$

$$(2 \times 3) + (2 \times 5)$$

$$(7 \times 5) + (7 \times 9)$$

$$2 \times (3 + 5)$$

$$3 \times (5 \times 4)$$

$$9 \times 10$$

- b Ahmed has a garden with two sections of vegetables. Each section of vegetables has 5 rows with 10 plants in each row . How many plants does Ahmed have plant in his garden ? ( Write an equation and solve )

.....  
 .....  
 .....





LESSON

2

# Estimating the results of multiplication

To Find the product of :  $6 \times 7$

## Neighboring multiplication facts strategy

To estimate the product of  $6 \times 7$ ,

- We look for the product that we know is close to the problem, and then estimate the results
- We know that  $5 \times 7 = 35$ ,  
So the product of  $6 \times 7$  must be greater than 35
- We know that  $6 \times 8 = 48$ ,  
So the product of  $6 \times 7$  must be less than 48
- The estimate the product of  $6 \times 7$  is 40

## The actual solution:

$$6 \times 7 = 6 \times (3 + 4) = (6 \times 3) + (6 \times 4) = 18 + 24 = 42$$

Comparing the actual product (42) with the estimate (40), we find that the estimate is close to the actual result:  
So a return estimate is **acceptable**



Estimate the answer and Then, solve each problem using any strategy or property that helps you.

The Problem	The Estimation	The Actual Solution	Acceptable	Unacceptable
$7 \times 8$	$6 \times 8 = 48$ $7 \times 9 = 63$ The estimation : 50	$7 \times 8 = 7 \times (5 + 3)$ $= (7 \times 5) + (7 \times 3)$ $= 35 + 21 = 56$		✓
$3 \times 2 \times 7$ $\vee$ $6 \times 7$	$5 \times 7 = 35$ $6 \times 8 = 48$ The estimation : 40	$3 \times 2 \times 7 = (3 \times 2) \times 7$ $= 6 \times 7$ $= 42$	✓	



**To Find the the product of :  $4 \times 18$**

$$\begin{array}{r} 4 \times 18 \\ \quad \downarrow \\ 4 \times 20 = 80 \end{array}$$
$$4 \times 18 = 4 \times (10 + 8)$$
$$= (4 \times 10) + (4 \times 8) = 40 + 32 = 72$$

40 answers are not acceptable because it is less than the actual answer  
80 answers are acceptable because it is close to the actual answer.



- 2** Estimate the answer and Then, solve each problem using any strategy or property that helps you.

The problem	Front-end estimation strategy	Round to the nearest ten strategy	The actual solution
<b>a</b> $8 \times 12$			
<b>b</b> $9 \times 13$			
<b>c</b> $6 \times 19$			



# HOMWORK

Pony

- 1 Estimate the answer and Then, solve each problem using any strategy or property that helps you.

	The Problem	The Estimation	The Actual Solution	Acceptable	Unacceptable
a	$8 \times 7$	..... ..... .....	..... ..... .....		
b	$4 \times 9$	..... ..... .....	..... ..... .....		
c	$6 \times 8$	..... ..... .....	..... ..... .....		
d	$5 \times 9$	..... ..... .....	..... ..... .....		
e	$3 \times 4 \times 5$ ..... $\times$ .....	..... ..... .....	..... ..... .....		
f	$2 \times 8 \times 6$ ..... $\times$ .....	..... ..... .....	..... ..... .....		
g	$4 \times 7 \times 5$ ..... $\times$ .....	..... ..... .....	..... ..... .....		



Estimate the answer and Then, solve each problem using any strategy or property that helps you.

	The problem	Front-end estimation strategy	Round to the nearest ten strategy	The actual solution
a	$8 \times 18$			
b	$6 \times 13$			
c	$3 \times 19$			
d	$9 \times 16$			



**First Choose the correct answer**

- a  $(4 \times 5) + (4 \times 7) = \dots\dots\dots$   
 (  $4 \times (5 \times 7)$  or  $4 \times (3 \times 4)$  or  $(4 \times 4) \times 7$  )
- b  $5 + 5 + 5 + 5 = \dots\dots\dots$  (  $4 \times 5$  or  $4 + 5$  or  $5 \times 5$  )
- c  $7 \times 3 = \dots\dots\dots$  (  $7 + 3$  or  $7 + 7 + 7$  or  $4 \times 5$  )
- d  $(5 \times 3) \times 4 = \dots\dots\dots$  (  $5 \times 8 \times 1$  or  $5 \times (10 \times 2)$  or  $5 \times (2 \times 6)$  )
- e  $7 \times 18 = \dots\dots\dots$   
 (  $(7 \times 10) \times 8$  or  $(7 \times 10) + (7 \times 8)$  or  $(7 \times 9) + (7 \times 8)$  )

**Second Complete the following**

- a  $9 \times 6 = \dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots$
- b  $3 + 3 + 3 + 3 + 3 + 3 = \dots\dots + \dots\dots$
- c  $8 \times 5 = \dots\dots \times 8$
- d  $3 \times 17 = (3 \times \dots\dots) + (3 \times \dots\dots) = \dots\dots + \dots\dots = \dots\dots$
- e  $7 \times 2 \times 5 = \dots\dots \times (\dots\dots \times \dots\dots) = \dots\dots \times \dots\dots = \dots\dots$

**Third Answer the following**

- a Amir had 4 boxes. In each box were 3 dolls, and each doll had 2 buttons on its shirt. How many total buttons were there?  
 Write the equation you are trying to solve in this story problem
- .....

- b Dalia had 8 baskets. Each basket held 6 eggs.  
 How many eggs did Dalia have in all?  
 Write the equation you are trying to solve in this story problem  
 use estimation strategy.

The Problem	The Estimation	The Actual Solution	Acceptable	Unacceptable
$6 = 6 \div 1$				



LESSON 3

# The Relation between Multiplication and Division

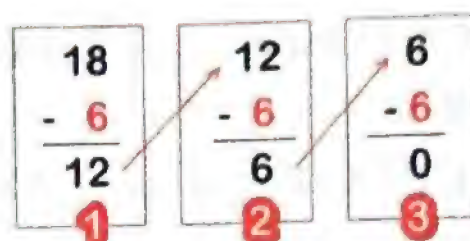
## Division Strategies

### 1 Repeated Subtraction

To divide :  $18 \div 6$

We can subtract 6 from 18 for 3 times

So ,  $18 \div 6 = 3$

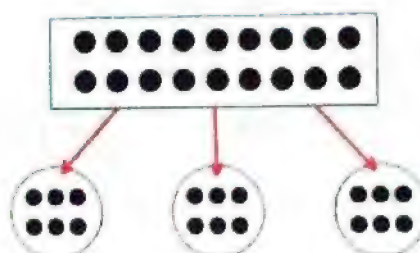


### 2 Equal groups

#### Part-part-whole model

To divide :  $18 \div 6$

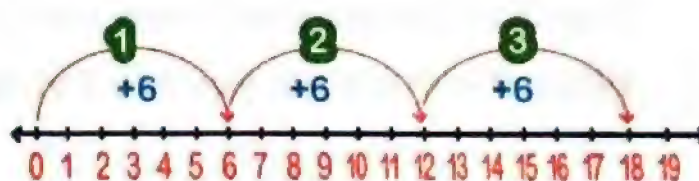
So ,  $18 \div 6 = 3$



### 3 Skip counting

To divide :  $18 \div 6$

Count : 6 , 12 , 18



So ,  $18 \div 6 = 3$

### 4 Fact Family

To divide :  $18 \div 6$

So ,  $18 \div 6 = 3$



$$3 \times 6 = 18$$

$$6 \times 3 = 18$$

$$18 \div 3 = 6$$

$$18 \div 6 = 3$$



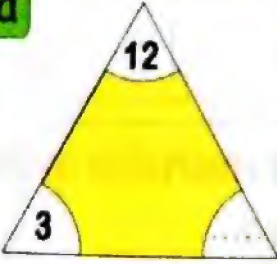
**1** Solve each problem :

(Show how you solved the problem in the work space )

	Problem	Work space ( Used strategy )	Answer
<b>a</b>	$16 \div 8$		
<b>b</b>	$20 \div 5$		
<b>c</b>	$24 \div 2$		
<b>d</b>	$63 \div 7$		

**2** Find the missing factor in the triangles , then write the four equations to complete the fact family:

**a**



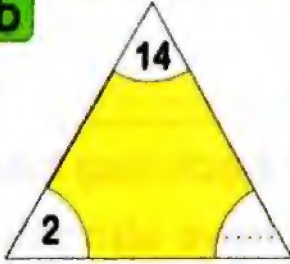
$\times =$

$\times =$

$\div =$

$\div =$

**b**



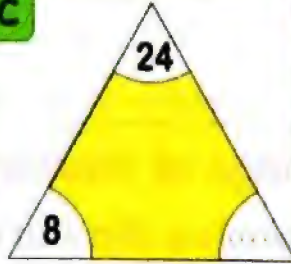
$\times =$

$\times =$

$\div =$

$\div =$

**c**



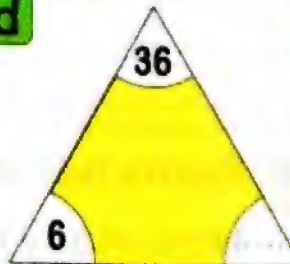
$\times =$

$\times =$

$\div =$

$\div =$

**d**



$\times =$

$\div =$



**3 Complete :**

**a**  $6 \times \dots = 18$

**b**  $9 \times \dots = 27$

**c**  $\dots \times 3 = 24$

**d**  $\dots \times 6 = 48$

**e**  $4 \times 8 = \dots$

**f**  $3 \times 4 = \dots$

**g**  $24 \div \dots = 4$

**h**  $56 \div \dots = 8$

**i**  $\dots + 7 = 5$

**j**  $\dots \div 9 = 54$

**k**  $64 \div 8 = \dots$

**l**  $15 \div 3 = \dots$

**4 Fill in the missing numbers and then draw lines to connect the equations that are related.**

$2 \times \dots = 18$

$80 \div \dots = 8$

$7 \times 4 = \dots$

$18 \div 2 = \dots$

$\dots \times 10 = 80$

$\dots \div 4 = 7$

**5 Habiba baked 25 cookies. She wanted to share them with her 5 friends. How many cookies would each friend get?**

Equation	Work space ( Used strategy )	Answer

**6 Farha had 8 bags of marbles. Each bag had 6 marbles inside. How many marbles did Farha have altogether?**

Equation	Work space ( Used strategy )	Answer

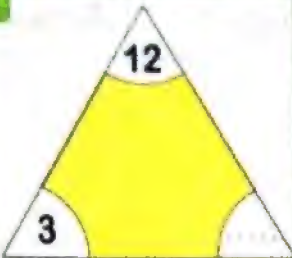
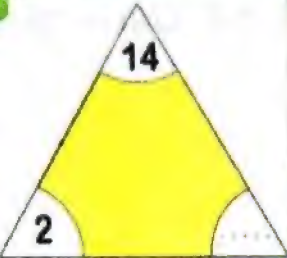
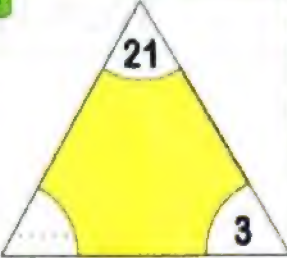
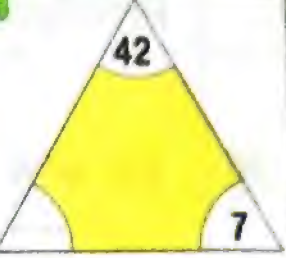
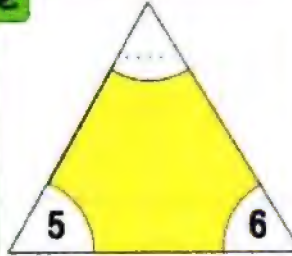
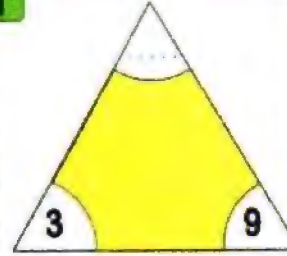
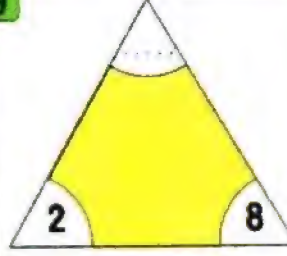
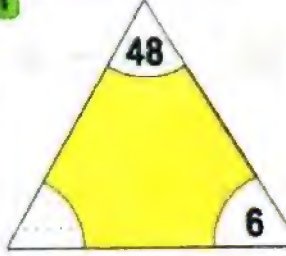


- 1** Solve each problem :  
(Show how you solved the problem in the work space )

	Problem	Work space ( Used strategy )	Answer
<b>a</b>	$28 \div 4$		
<b>b</b>	$56 \div 7$		
<b>c</b>	$36 \div 4$		
<b>d</b>	$28 \div 7$		
<b>e</b>	$14 \div 2$		
<b>f</b>	$45 \div 5$		
<b>g</b>	$27 \div 3$		



**2** Find the missing factor in the triangles, then write the four equations to complete the fact family:

<p><b>a</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>b</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>c</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>d</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>
<p><b>e</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>f</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>g</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>	<p><b>h</b></p>  <p> <math>\times =</math>  <math>\times =</math>  <math>\div =</math>  <math>\div =</math> </p>

**3** Complete :

**a**  $5 \times \dots = 35$

**b**  $6 \times \dots = 36$

**c**  $\dots \times 7 = 63$

**d**  $\dots \times 8 = 56$

**e**  $6 \times 2 = \dots$

**f**  $3 \times 7 = \dots$

**g**  $45 \div \dots = 9$

**h**  $63 \div \dots = 7$

**i**  $\dots + 3 = 8$

**j**  $\dots + 2 = 5$

**k**  $81 \div 9 = \dots$

**l**  $54 \div 6 = \dots$



**4** Fill in the missing numbers and then draw lines to connect the equations that are related.

**a**

$5 \times \dots = 20$

$42 \div \dots = 7$

$6 \times 7 = \dots$

$45 \div 5 = \dots$

$\dots \times 9 = 45$

$\dots \div 5 = 4$

**b**

$6 \times \dots = 48$

$24 \div \dots = 6$

$3 \times 8 = \dots$

$24 \div 8 = \dots$

$\dots \times 4 = 24$

$\dots \div 6 = 8$

**c**

$9 \times \dots = 18$

$12 \div \dots = 6$

$6 \times 2 = \dots$

$12 \div 3 = \dots$

$\dots \times 3 = 12$

$\dots \div 2 = 9$

**5** Habiba baked 25 cookies. She wanted to share them with her 5 friends. How many cookies would each friend get?

Equation	Work space ( Used strategy )	Answer



- 6** Farha had 8 bags of marbles. Each bag had 6 marbles inside. How many marbles did Farha have altogether?

Equation	Work space ( Used strategy )	Answer

- 7** Adel picked 45 apples. He put them equally into buckets. When he was done, he had 9 buckets. How many apples were in each bucket?

Equation	Work space ( Used strategy )	Answer

- 8** The teacher has 36 crayons to share equally between 6 students. What is the share of each ?

Equation	Work space ( Used strategy )	Answer



## First Choose the correct answer

- a If  $4 \times 8 = 32$ , Then  $32 \div 8 = \dots\dots\dots$  ( 4 or 8 or 32 )
- b  $42 \div \dots\dots\dots = 7$  ( 7 or 6 or 5 )
- c  $5 \times 18 = \dots\dots\dots$  (  $5 \times 20$  or  $10 \times 8$  or  $10 \times 9$  )
- d  $(7 \times 3) + (3 \times 7) = \dots\dots\dots$  (  $6 \times 14$  or  $7 \times 9$  or  $7 \times 6$  )
- e  $7 + 7 + 7 + 7 + 7 = \dots\dots\dots$  (  $5 \times 7$  or  $7 \times 7$  or  $7 + 7$  )

## Second Complete the following

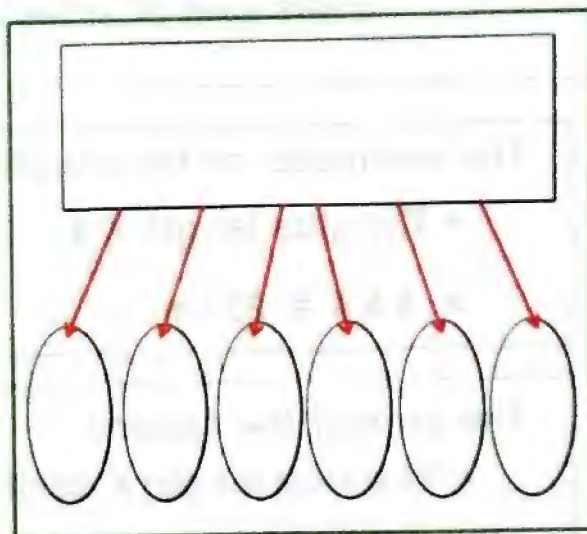
- a  $36 \div 4 = \dots\dots\dots$
- b  $\dots\dots\dots \div 7 = 9$
- c  $(5 \times 7) + (5 \times 7) = 5 \times \dots\dots\dots$
- d  $7 \times 50 = 35 \times \dots\dots\dots$
- e  $6 \times 4 = 8 + \dots\dots\dots + \dots\dots\dots$

## Third Answer the following

- a The teacher has 36 crayons to share equally between 6 students.  
What is the share of each ?

Draw a part-part-whole model to show your answer .

$$\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$$



- b The price of each book is 8 pounds.  
How many books can you buy if you have 40 pounds?

$$\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$$

LESSON

4

# The perimeter & The area

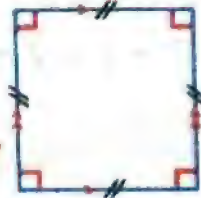
**REMEMBER**



Rectangle

Each Two opposite sides are equal and parallel

Each Two opposite sides are parallel  
All sides are equal

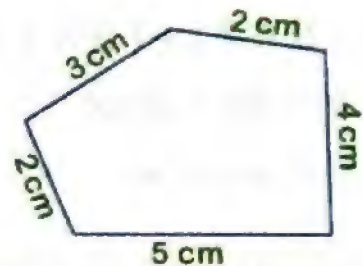


Square

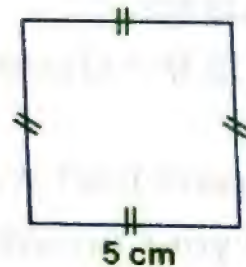
## The perimeter of any polygon:

The perimeter =  $5 + 4 + 2 + 3 + 2 = 12$  cm

The perimeter of any polygon equals sum of sides length.

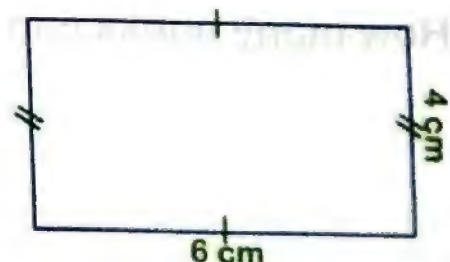


The perimeter of the square  
= The side length  $\times 4$   
=  $5 \times 4 = 20$  cm



The area of the square  
= The side length  $\times$  itself  
=  $5 \times 5 = 25$  square unit

The perimeter of the rectangle  
= (Length + width)  $\times 2$   
=  $(6 + 4) \times 2 = 20$  cm



The area of the rectangle  
= length  $\times$  width  
=  $6 \times 4 = 24$  square unit

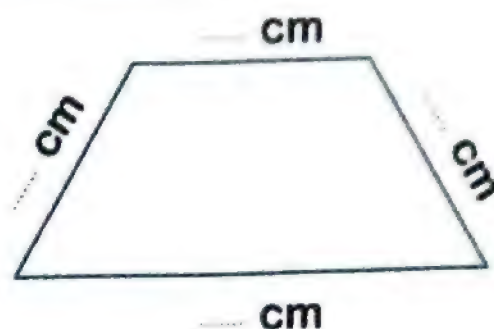


**1** Use your ruler to measure each of the side lengths of the following then find the perimeter

**a** The perimeter

$$= \dots + \dots + \dots + \dots$$

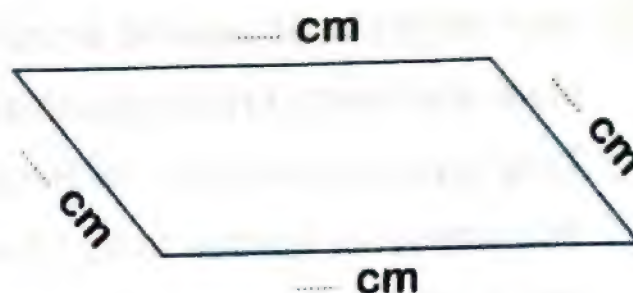
$$= \dots \text{ cm}$$



**b** The perimeter

$$= \dots + \dots + \dots + \dots$$

$$= \dots \text{ cm}$$



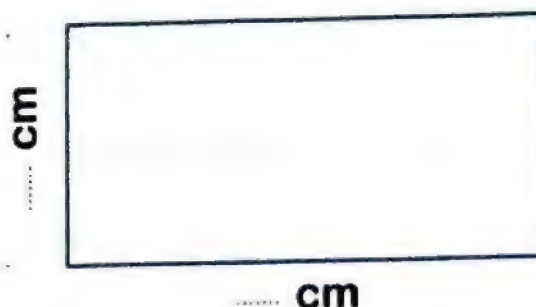
**2** Find the area and the perimeter of the following :

**a** The area = .....

$$= \dots$$

The perimeter = .....

$$= \dots$$

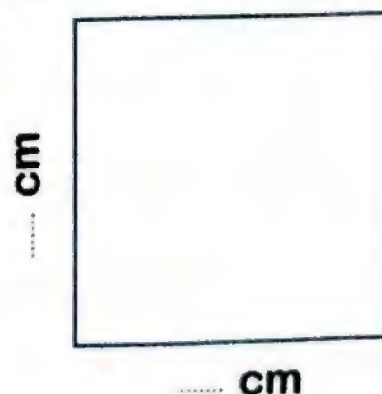


**b** The area = .....

$$= \dots$$

The perimeter = .....

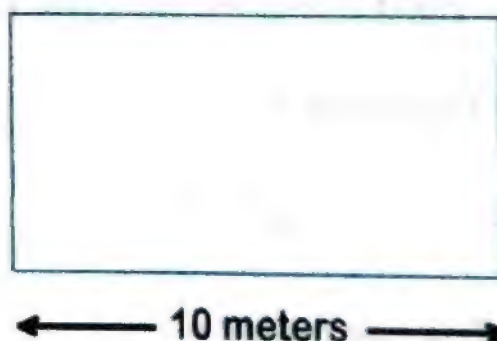
$$= \dots$$



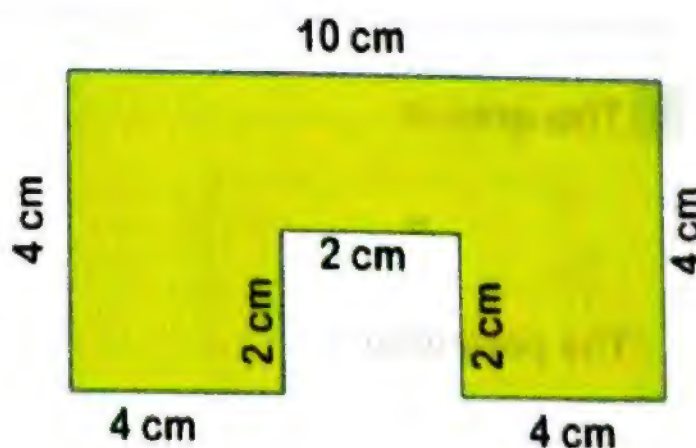
- 3** You help build a fence for your neighbors' square vegetable garden. Using the image provided, how many meters of fencing will you need?



- 4** Your neighbor decides to show their appreciation by helping you plant and fence a rectangular garden. They give you 24 meters of fencing that they had left over. You want your garden to be 10 meters long. How wide can you make your garden?

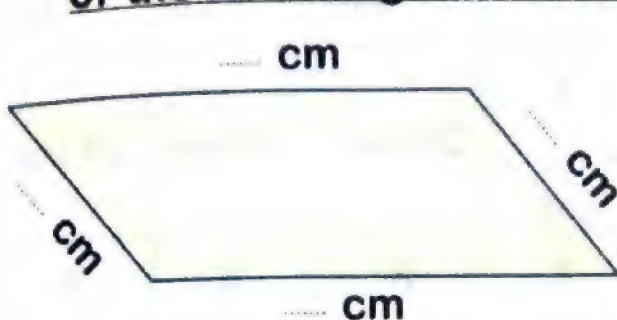


- 5** Calculate the area of the shape opposite





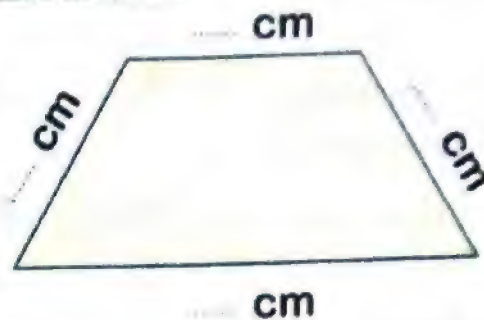
- 1** Use your ruler to measure each of the side lengths of the following then find the perimeter



- a** The perimeter

$$= \dots + \dots + \dots + \dots$$

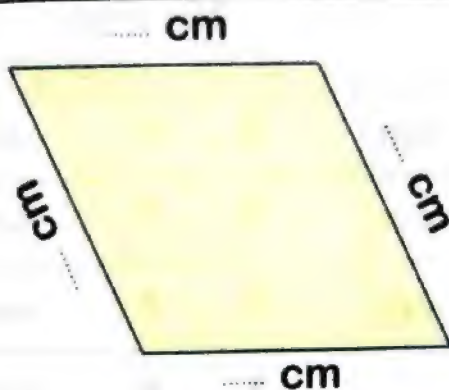
$$= \dots \text{ cm}$$



- b** The perimeter

$$= \dots + \dots + \dots + \dots$$

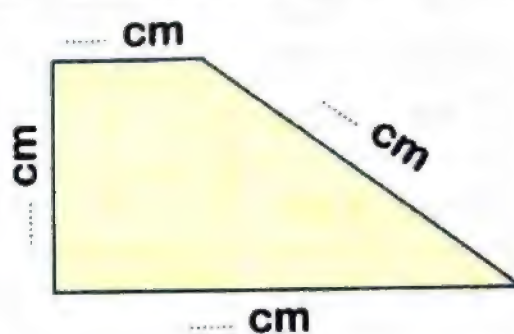
$$= \dots \text{ cm}$$



- c** The perimeter

$$= \dots + \dots + \dots + \dots$$

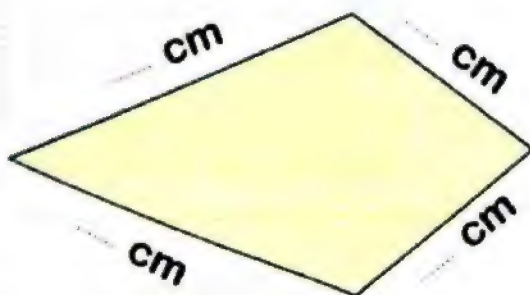
$$= \dots \text{ cm}$$



- d** The perimeter

$$= \dots + \dots + \dots + \dots$$

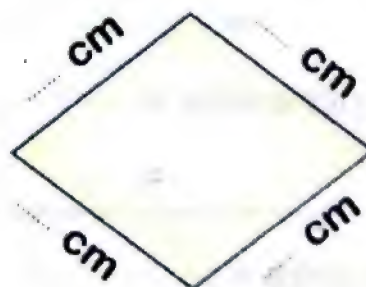
$$= \dots \text{ cm}$$



- e** The perimeter

$$= \dots + \dots + \dots + \dots$$

$$= \dots \text{ cm}$$



- f** The perimeter

$$= \dots + \dots + \dots + \dots$$

$$= \dots \text{ cm}$$

**2** Completet the following table :

The side length	7 cm	8 cm	9 cm	..... cm	..... cm	..... cm
The perimeter of the square	..... X ..... = ..... cm	..... X ..... = ..... cm	..... X ..... = ..... cm	20 cm	16 cm	24 cm
The area of the square	..... X ..... = ..... square unit	..... X ..... = ..... square unit	..... X ..... = ..... square unit	..... X ..... = ..... square unit	..... X ..... = ..... square unit	..... X ..... = ..... square unit

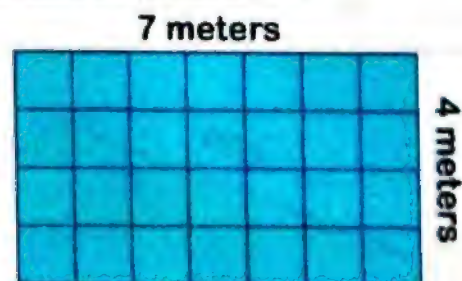
**3** Completet the following table :

The length	The width	The perimeter of the rectangle	The area of the rectangle
7 cm	5 cm	( ..... + ..... ) X ..... = ..... cm	..... X ..... = ..... square unit
10 cm	4 cm	( ..... + ..... ) X ..... = ..... cm	..... X ..... = ..... square unit
9 cm	3 cm	( ..... + ..... ) X ..... = ..... cm	..... X ..... = ..... square unit
10 cm	... cm	26 cm	..... X ..... = ..... square unit
... cm	5 cm	22 cm	..... X ..... = ..... square unit

**4** Find the area and the perimeter of the following :

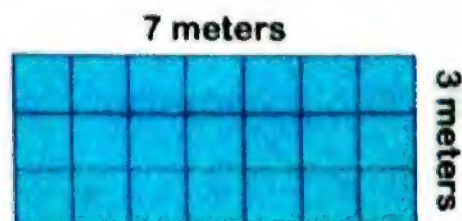
**a** The area = .....  
= .....

The perimeter = .....  
= .....



**b** The area = .....  
= .....

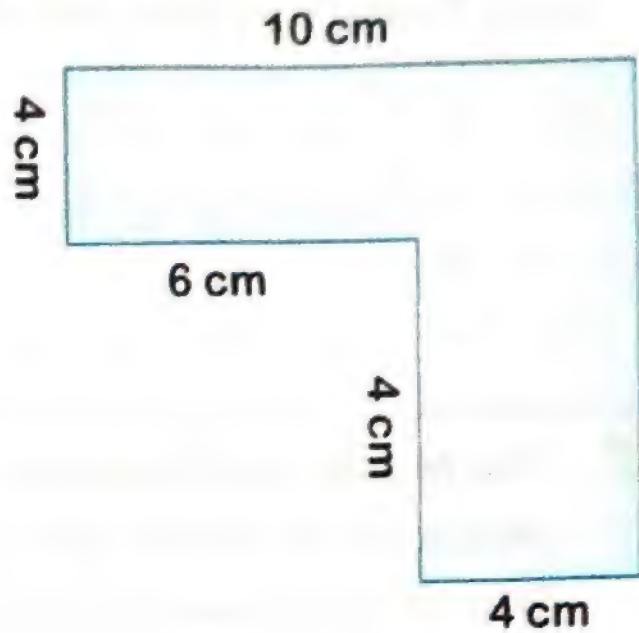
The perimeter = .....  
= .....



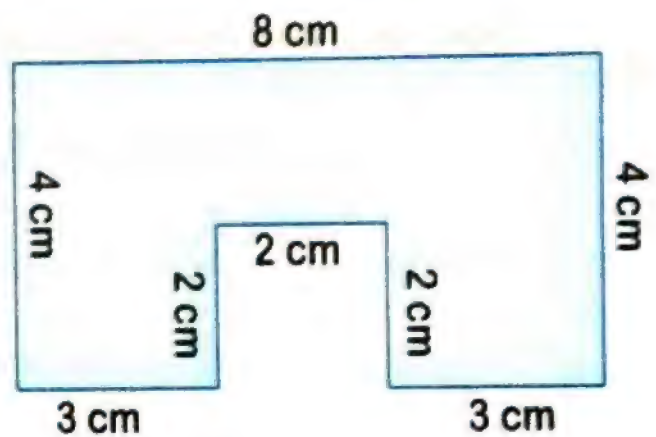


5 Calculate the perimeter and the area of each shape :

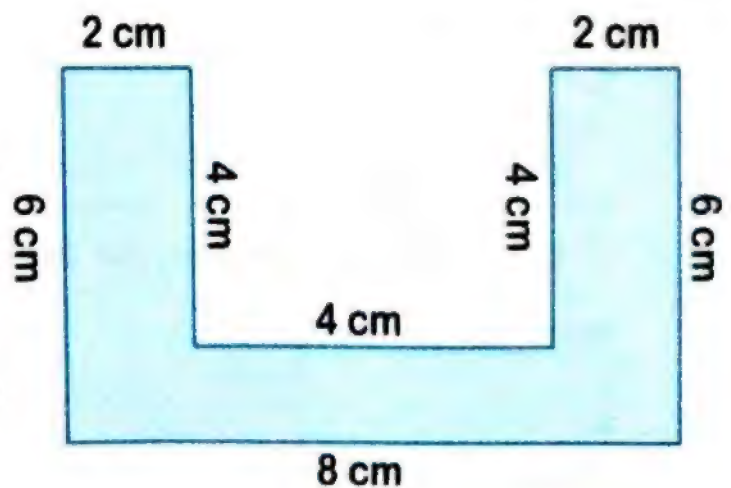
a



b



c



- 6** You help build a fence for your neighbors' square vegetable garden. Using the image provided, how many meters of fencing will you need?

.....

.....

.....



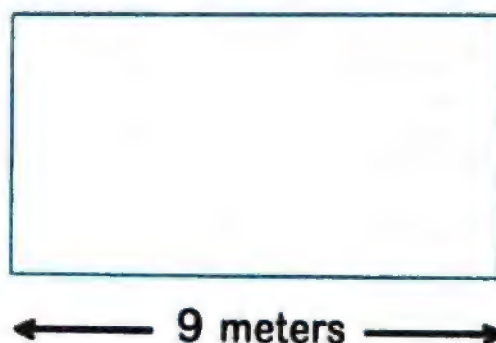
- 7** Your neighbor decides to show their appreciation by helping you plant and fence a rectangular garden. They give you **30** meters of fencing that they had left over. You want your garden to be **9** meters long. How wide can you make your garden?

.....

.....

.....

.....



- 8** If the floor of Huda's room is square, and its perimeter is 28 meters, then what is its side length and its area?

.....

.....

.....

.....





## First Choose the correct answer

- a The perimeter of a rectangle with length 8 cm and width 5 cm is ..... cm ( 13 or 40 or 26 )
- b  $7 \times (5 + 3) =$  ..... (  $35 + 3$  or  $7 \times 2 \times 4$  or  $7 + 13$  )
- c  $3 + 3 + 3 + 3 + 3 + 3 =$  ..... (  $2 \times 9$  or  $3 \times 3$  or  $3 + 6$  )
- d  $2 \times 30 = 6 \times$  ..... ( 5 or 10 or 60 )
- e The side length of a square is 10 meters , The its perimeter is ..... meter ( 40 or 100 or 14 )

## Second Complete the following

- a  $6 \times 18 = 6 \times ( \dots + \dots ) = \dots \times \dots + \dots \times \dots$
- b  $7 \times ( \dots \times 5 ) = ( \dots \times 8 ) \times 5$
- c The perimeter of a square is 24 cm then its side length is ..... cm
- d The perimeter of the square = Side length  $\times$  .....
- e  $9 \times \dots = 5 \times \dots$

## Third Answer the following

- a Find the result :

①  $4 \times 12 =$  .....

③  $32 \div 4 =$  .....

②  $2 \times 3 \times 7 =$  .....

④  $63 \div 9 =$  .....

- b Find the area and the perimeter of a square with side length 7 cm .

.....

.....



- c The perimeter rectangle is 24 cm , and its length 9 cm  
Calculate its width

.....

.....

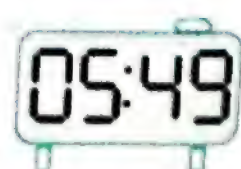


9 cm

LESSON

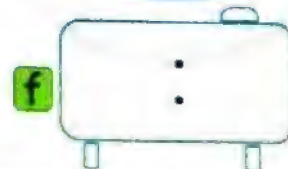
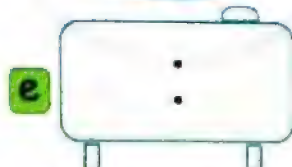
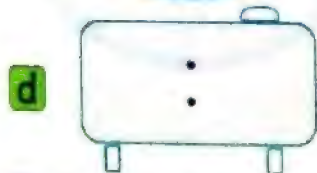
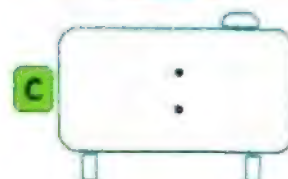
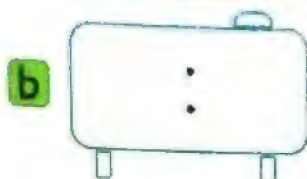
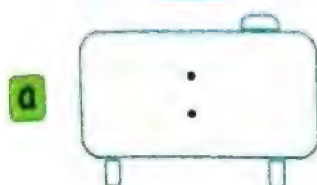
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The Time

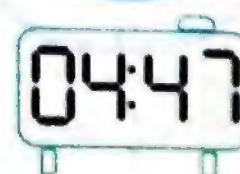
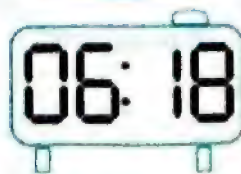




**1** Write down the time shown on the Clock

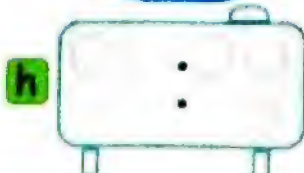
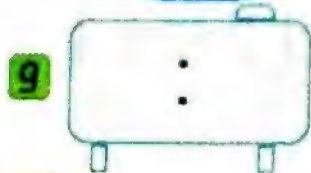
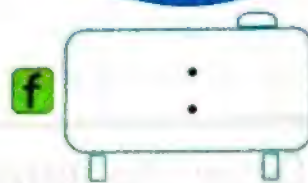
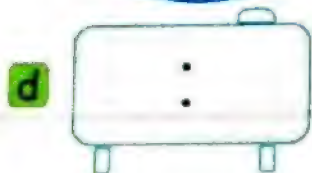


**2** Draw the hands of the clock :



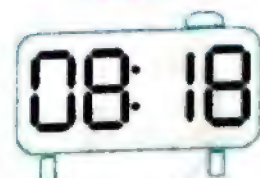
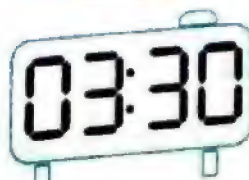
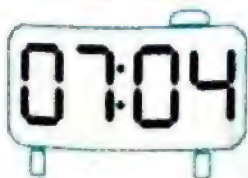
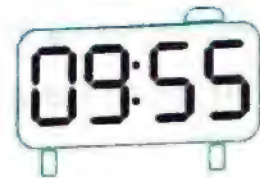
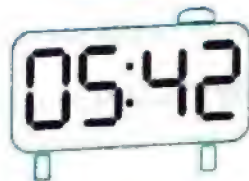
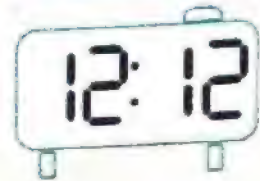
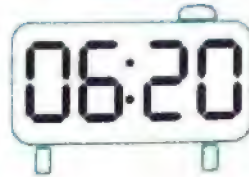


1 Write down the time shown on the Clock





2 Draw the hands of the clock :





**First** Choose the correct answer

- a Sixty thousand , seven hundred and ninety six = .....  
( 6 796 or 60 796 or 67 096 )
- b  $7 \times (5 \times 3) = \dots\dots\dots$  (  $4 \times 8$  or  $7 + 5 + 3$  or  $7 \times 15$  )
- c  $2 + 2 + 2 + 2 + 2 + 2 = \dots\dots\dots$  (  $3 \times 4$  or  $2 + 6$  or  $2 \times 2$  )
- d  $4 \times (10 + 8) = \dots\dots\dots$  (  $14 + 12$  or  $4 + 18$  or  $40 + 32$  )
- e The Smallest 5-digit number is .....  
( 10 234 or 12 345 or 10 000 )

**Second** Complete the following

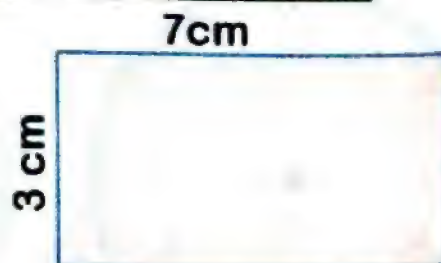
- a  $7 \times 5 = \dots + \dots + \dots + \dots + \dots$
- b  $(2 \times 3) + (8 \times 3) = \dots \times (\dots + \dots)$
- c The perimeter of the rectangle = ( ..... + ..... )  $\times$  .....
- d .....  $\div 8 = 6$
- e The value of the digit 5 in the number 75 981 is .....

**Third** Answer the following

- a A building with 10 floors, 3 flats on each floor, and 4 windows in each flats How many windows are in this building?  
.....

- b Find the perimeter of the opposite rectangle.

The perimeter = .....



- c Write the time :





LESSON 6

# Word Problems

## Solving Word Problems

Maggie picks 2 flowers. Her mom gives her 2 more. How many does she have now?



### READ

Read the problem for understanding

Maggie picks 2 flowers. Her mom gives her 2 more. How many does she have now?



### CONSIDER

Underline the important facts and look for patterns.



### PLAN

Draw a picture, if needed, to help you solve the problem.

$$2+2=$$

### WRITE

Write an equation for the number problem.

$$2+2=4$$

### SOLVE

Solve the problem. Show your work.



### Evaluate

Does your answer make sense? If not, try again.



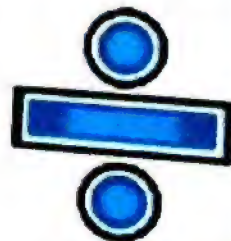
All together  
Plus  
In all  
Add  
Sum  
Total



Subtract  
Remain  
Difference  
Fewer  
Less than  
Minus  
How many more



Multiply  
Product  
Times  
Twice  
Total  
Multiplied by



Divide  
Quotient  
Goes into  
Each  
Split  
Equally



- 1** Ali earns 25 LE per week for doing all his chores. On the fourth week, he forgets to take out the trash, so he only earns 20 LE. Write and solve an equation to show how much Ali earns in 4 weeks.
- .....
- .....

- 2** Miss Salma orders 3 packs of markers. Each pack contains 6 markers. After passing out 1 marker to each student in her class, she has 2 left. How many students are in Miss Salma's class?
- .....
- .....
- .....

- 3** Basem buys a box containing 18 pieces of fruit. The box includes an equal number of figs, bananas, and oranges. He eats all of the figs. How many pieces of fruit does Basem have left?
- .....
- .....
- .....

- 4** Each day, Habiba eats 10 crackers for a snack at school. On Friday, she drops 3 crackers and only eats 7. Write and solve an equation to show the total number of crackers Habiba eats during the week.
- .....
- .....
- .....



Detecting and correcting errors

**EX The Problem**

Hashems' family went on a three-day road trip. On the first day, they drove 350 kilometers. On the second day, they drove 213 kilometers. On the third day, they drove 124 kilometers. Last year on their road trip, they drove a total of 432 kilometers. How many more kilometers did they drive on this trip?

**The Student's answer :**

Hashems' family drove on this road trip =  $350 + 213 + 124 = 687$  km  
Hashems' family drove in all =  $687 + 432 = 1119$  km in all.

**What did the student do wrong?**

Adding (  $687 + 432$  )

**The correct solve**

The difference between two trips =  $687 - 432 = 255$  km

**5 The Problem**

Hoda had 3 bags of candy. Each bag contained 4 pieces of candy. She also had 8 pieces of candy that were not in a bag. How much candy did Hoda have in all?

**The Student's answer :**

Hoda had 12 pieces of candy in all.  
First, I figured out what she had in the bags,  
and then I took away what she had that was not in the bag

**What did the student do wrong?**

.....  
.....  
.....  
.....

**The correct solve**

.....  
.....  
.....  
.....



**6 Read and solve each problem.**

**Use two different strategies to solve the problem**

- a** The park has 152 trees. There are 88 fig trees. The rest of the trees are palm trees. How many more fig trees are there than palm trees?

First Strategy	Second Strategy
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

- b** There are 17 young crocodiles and 19 adult crocodiles. The crocodiles are placed equally into 4 areas. How many crocodiles are in each area?

First Strategy	Second Strategy
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....



**1** Answer the following :

- a** Laila buys 24 seeds. She has 5 pots. She wants to plant 3 seeds in each pot. How many more pots does Laila need to plant all of her seeds?

.....

.....

.....

- b** I have a bag with pens and markers inside. The objects in my bag have a mass of 100 grams in all. There are 4 pens, each with a mass of 15 grams.

How many markers do I have in my bag ?

If each marker has a mass of 20 grams?

.....

.....

.....

- c** Omar had 40 movie tickets. He kept 10 tickets, then distributed the rest equally among 10 of his friends.

How many tickets did each friend get?

.....

.....

- d** If the number of boys is in class 9 and the number of girls is twice the number of boys. How many students are in the class?

.....

.....



**2 The Problem**

Mrs. Mariam baked 24 chocolate chip cookies. She divided the cookies equally into 4 containers. Then, she baked more cookies so that she could put 4 more cookies in each container. How many cookies are in each container?

**The Student's answer :**

There are 7 cookies in each container 6 cookies from the first batch she made and 1 cookie from the second batch she made.

**What did the student do wrong ?**

**The correct solve**

**3 The Problem**

Emad earned money for completing extra chores. He earned 8 LE per hour cleaning the bedrooms. He worked for 3 hours. He also earned an extra 16 LE for vacuuming the entire house. How much money did Emad earn?

**The Student's answer :**

Emad earned 24 LE by completing the chores. He earned 8 LE cleaning the bedrooms and then 16 LE for vacuuming.

**What did the student do wrong ?**

**The correct solve**



**4** Read and solve each problem.

Use two different strategies to solve the problem

**a** The lamp needs 4 batteries for lighting.

How many batteries do you need for 12 light bulbs?

First Strategy	Second Strategy
..... ..... .....	..... ..... .....

**b** Ahmed has 12 kg of grapes and 8 kg of apples.

If he wanted to put these fruits together in 4 bags,

What was the mass of each bag?

First Strategy	Second Strategy
..... ..... .....	..... ..... .....

**c** The bag contains 4 pencils of 10 grams and 4 colored pencils of 8 grams each.

Find the total mass of these pens.

First Strategy	Second Strategy
..... ..... .....	..... ..... .....

**First Choose the correct answer**

- a The greatest 5-different-digit number is .....  
 ( 99 999 or 98 765 or 90 000 )
- b  $8 + 8 + 8 = \dots\dots$  .....  
 (  $8 + 3$  or  $8 \times 8$  or  $6 \times 4$  )
- c  $6 \times 20 = \dots\dots$  .....  
 (  $12 \times 10$  or  $8 \times 10$  or  $70 \times 10$  )
- d  $(4 \times 5) + (6 \times 5) = \dots\dots$  .....  
 (  $24 \times 25$  or  $24 \times 5$  or  $10 \times 5$  )
- e 69 thousands + 25 tens = ..... ( 69 025 or 69 250 or 6 925 )

**Second Complete the following**

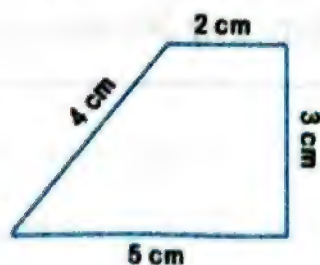
- a  $8 \times (5 \times 10) = 8 \times \dots\dots = \dots\dots$
- b  $4 \times 9 = \dots\dots + \dots\dots + \dots\dots + \dots\dots$
- c The area of a square with side length 8 cm = ..... cm
- d  $5 \times 19 = (\dots\dots \times \dots\dots) + (\dots\dots \times \dots\dots)$
- e An hour = ..... Minumtes

**Third Answer the following**

- a In the pet store, there are 6 cages with 5 big birds and 3 little birds in each cage.  
 What is the total number of birds in the cages?

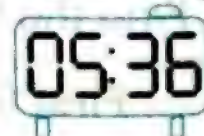
.....  
 .....  
 .....

- b Find the perimeter of the opposite figure .



.....  
 .....

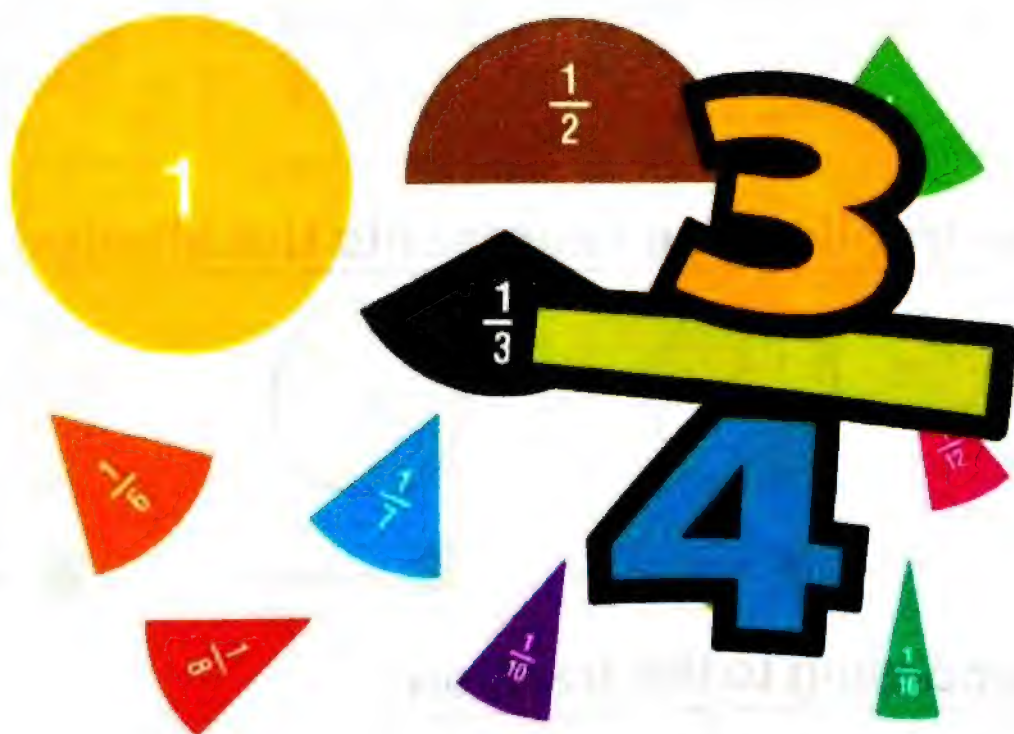
- c Draw the hands according to time shown .





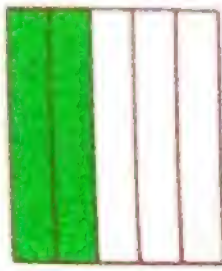
# CHAPTER

## Two



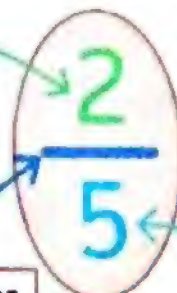
LESSON 1

# The fractions



**The Numerator**  
The number of parts you have.  
Shaded Parts


**The Denominator**  
The number of parts in a whole.  
All Parts




Fraction bar

1 Circle the shapes that are divided into equal parts :

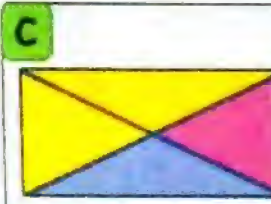
a




b




c




d




e



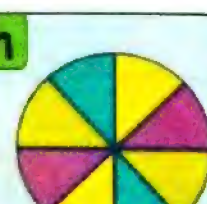
f



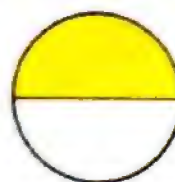
g




h




2 Write the fraction that represents the shaded part :




a



b

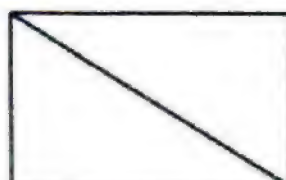


c




d

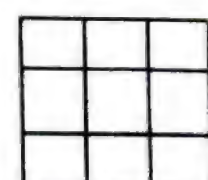
3 Color according to the fraction :



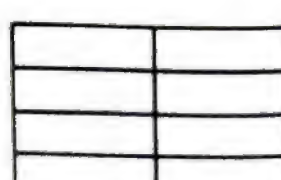
a  $\frac{1}{2}$



b  $\frac{2}{3}$



c  $\frac{5}{9}$



d  $\frac{3}{8}$



Number of equal parts	One Part in words	Fraction in picture and numbers
1 Part		Whole one
2 Parts	a half	$\frac{1}{2}$ $\frac{1}{2}$
3 Parts	a third	$\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$
4 Parts	a fourth	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$
5 Parts	a fifth	$\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$ $\frac{1}{5}$
6 Parts	a sixth	$\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$ $\frac{1}{6}$
7 Parts	a seventh	$\frac{1}{7}$ $\frac{1}{7}$ $\frac{1}{7}$ $\frac{1}{7}$ $\frac{1}{7}$ $\frac{1}{7}$ $\frac{1}{7}$
8 Parts	an eighth	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$
9 Parts	a ninth	$\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$ $\frac{1}{9}$

Example


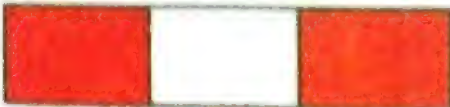





$$\frac{2}{3} = \text{Two thirds}$$

$$\frac{3}{4} = \text{Three fourths}$$

$$\frac{5}{7} = \text{Five sevenths}$$

$$\frac{8}{9} = \text{Eight ninths}$$

**4** Complete the following table

	Fraction	In digits	In words
a		$\frac{\quad}{\quad}$	
b		$\frac{\quad}{\quad}$	
c		$\frac{\quad}{\quad}$	
d		$\frac{\quad}{\quad}$	
e		$\frac{\quad}{\quad}$	
f		$\frac{\quad}{\quad}$	
g		$\frac{\quad}{\quad}$	

**5** Write the fraction in words

a  $\frac{1}{3} =$  .....

c  $\frac{3}{7} =$  .....

b  $\frac{2}{5} =$  .....

d  $\frac{5}{8} =$  .....

**6** Write the fraction in digits

a Three fourths =  $\frac{\quad}{\quad}$

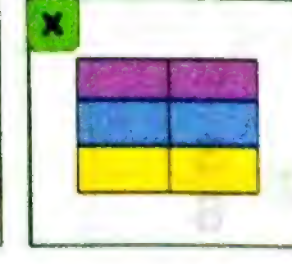
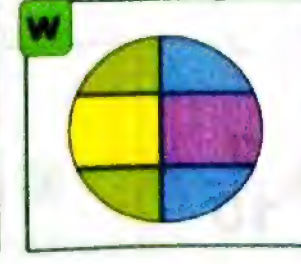
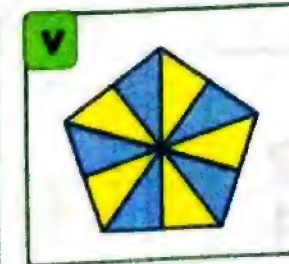
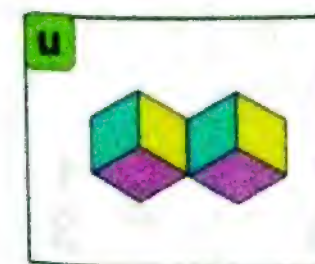
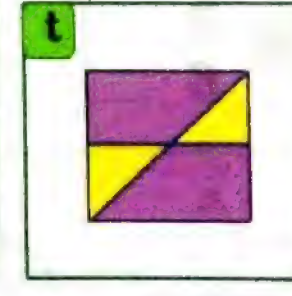
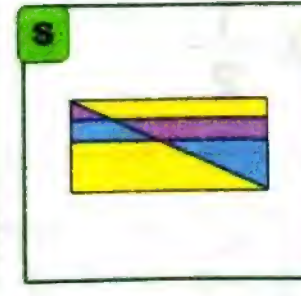
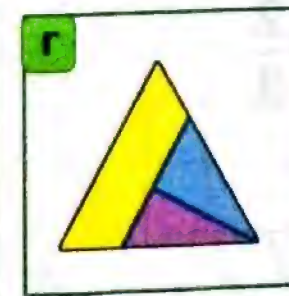
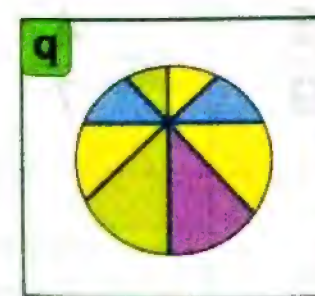
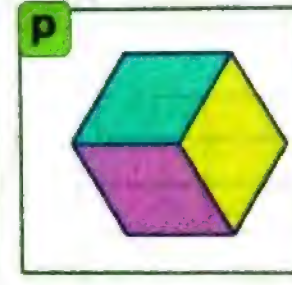
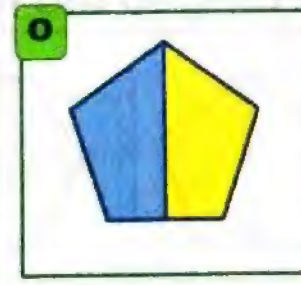
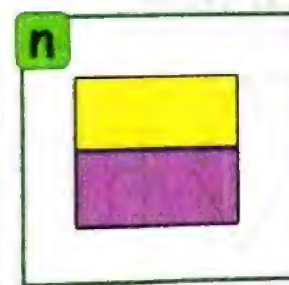
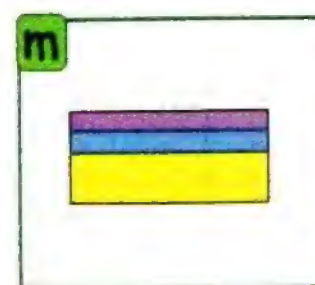
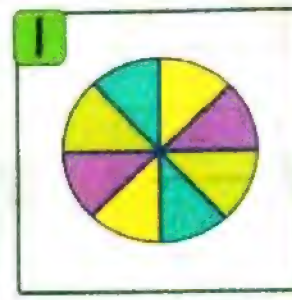
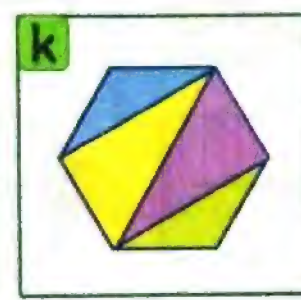
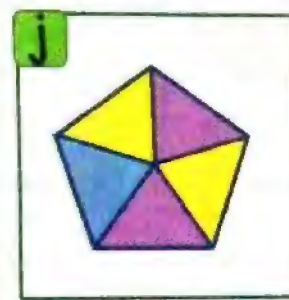
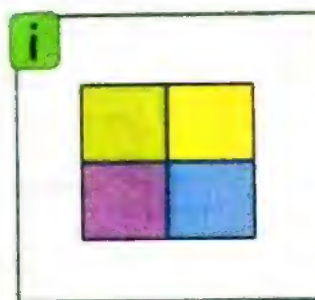
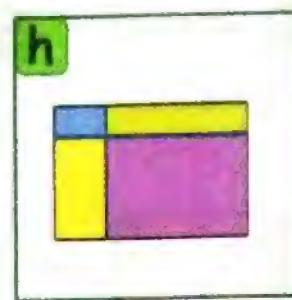
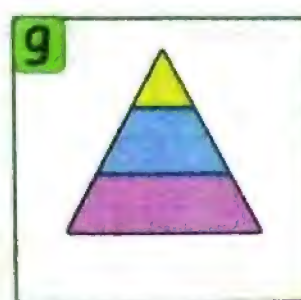
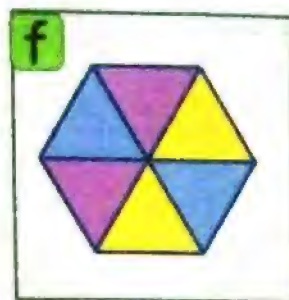
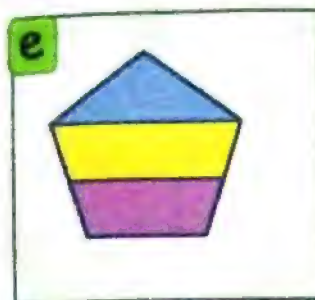
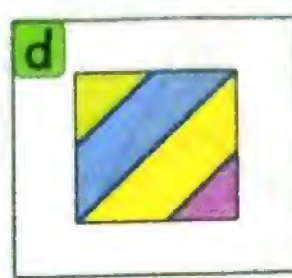
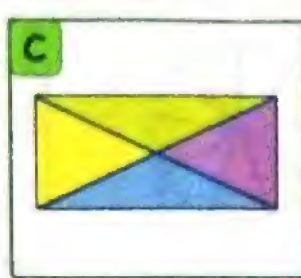
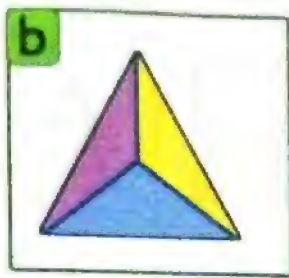
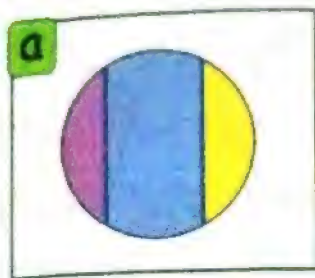
c Five sixths =  $\frac{\quad}{\quad}$

b Two ninths =  $\frac{\quad}{\quad}$

d a half =  $\frac{\quad}{\quad}$



1 Circle the shapes that are divided into equal parts





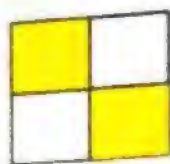
**2** Write the fraction that represents the shaded part



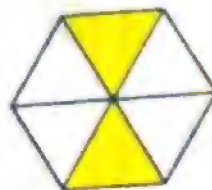
**a**  $\frac{\quad}{\quad}$



**b**  $\frac{\quad}{\quad}$



**c**  $\frac{\quad}{\quad}$



**d**  $\frac{\quad}{\quad}$



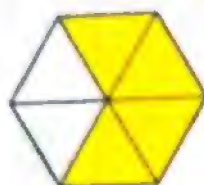
**e**  $\frac{\quad}{\quad}$



**f**  $\frac{\quad}{\quad}$



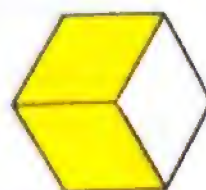
**g**  $\frac{\quad}{\quad}$



**h**  $\frac{\quad}{\quad}$

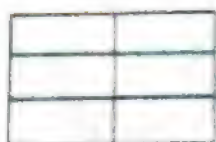


**i**  $\frac{\quad}{\quad}$



**j**  $\frac{\quad}{\quad}$

**3** Color according to the fraction :



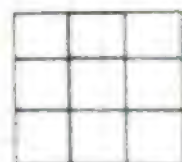
**a**  $\frac{5}{6}$



**b**  $\frac{1}{2}$



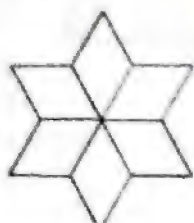
**c**  $\frac{2}{3}$



**d**  $\frac{5}{9}$



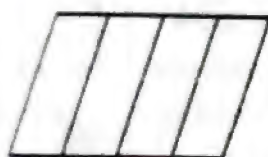
**e**  $\frac{4}{7}$



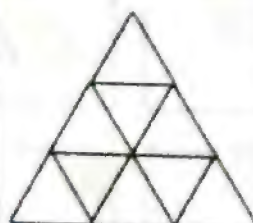
**f**  $\frac{3}{6}$



**g**  $\frac{2}{10}$



**h**  $\frac{2}{4}$

















**i**  $\frac{7}{9}$



**j**  $\frac{1}{3}$



4 Complete the following table

	Fraction	In digits	In words
a		$\frac{\quad}{\quad}$	.....
b		$\frac{\quad}{\quad}$	.....
c		$\frac{\quad}{\quad}$	.....
d		$\frac{\quad}{\quad}$	.....
e		$\frac{\quad}{\quad}$	.....
f		$\frac{\quad}{\quad}$	.....
g		$\frac{\quad}{\quad}$	.....
h		$\frac{\quad}{\quad}$	.....
i		$\frac{\quad}{\quad}$	.....
j		$\frac{\quad}{\quad}$	.....
k		$\frac{\quad}{\quad}$	.....
l		$\frac{\quad}{\quad}$	.....
m		$\frac{\quad}{\quad}$	.....
m		$\frac{\quad}{\quad}$	.....

**5** Write the fraction in words

**a**  $\frac{1}{3} =$  .....

**f**  $\frac{6}{7} =$  .....

**b**  $\frac{2}{3} =$  .....

**g**  $\frac{7}{8} =$  .....

**c**  $\frac{3}{4} =$  .....

**h**  $\frac{8}{9} =$  .....

**d**  $\frac{4}{5} =$  .....

**i**  $\frac{1}{4} =$  .....

**e**  $\frac{5}{6} =$  .....

**j**  $\frac{2}{5} =$  .....

**6** Write the fraction in digits

**a** A half =  $\frac{\quad}{\quad}$

**f** One eighth =  $\frac{\quad}{\quad}$

**b** Two fourths =  $\frac{\quad}{\quad}$

**g** Three ninths =  $\frac{\quad}{\quad}$

**c** Three fifths =  $\frac{\quad}{\quad}$

**h** Two thirds =  $\frac{\quad}{\quad}$

**d** Two sixths =  $\frac{\quad}{\quad}$

**i** Five fifths =  $\frac{\quad}{\quad}$

**e** four sevenths =  $\frac{\quad}{\quad}$

**j** One fourth =  $\frac{\quad}{\quad}$



## First Choose the correct answer

- a Three fifths = ..... (  $\frac{3}{5}$  or  $\frac{5}{3}$  or  $\frac{3}{8}$  )
- b  $8 \times \dots = 72$  ( 6 or 9 or 12 )
- c  $25\ 025 = 25 + \dots$  ( 25 or 250 or 25 000 )
- d  $(2 \times 3) + (2 \times 3) = 2 \times \dots$  (  $(3 \times 3)$  or  $(3 + 3)$  or  $(3 - 3)$  )
- e  $4 \times (5 \times 2) = \dots$  (  $(4 \times 5) + 2$  or  $(4 \times 2) \times 2$  or  $(4 \times 5) \times 2$  )

## Second Complete the following

- a  $\frac{2}{7} = \dots$  ( In words )
- b  $6 + 6 + 6 + 6 + 6 + 6 = \dots \times \dots$
- c  $8 \times 6 = \dots + \dots + \dots + \dots + \dots + \dots$
- d  $50\ 000 + 2\ 000 + 300 + 20 + 4 = \dots$
- e 2 hours = ..... minutes

## Third Answer the following

- a Find the area and the perimeter of the opposite square

The area = .....

The perimeter = .....



- b Write the fraction



a  $\frac{\dots}{\dots} = \dots$

b  $\frac{\dots}{\dots} = \dots$

- c Nada had LE 42 , If the price of one can is LE 6 .  
How many cans can she buy ?



LESSON

2

# Comparing fractions

- 1** Use fractional bars to represent the following situations, then write the value of each fraction as in the example.

**Example**

Noran has a long loaf of bread.

She wants to share it with 2 of her friends.



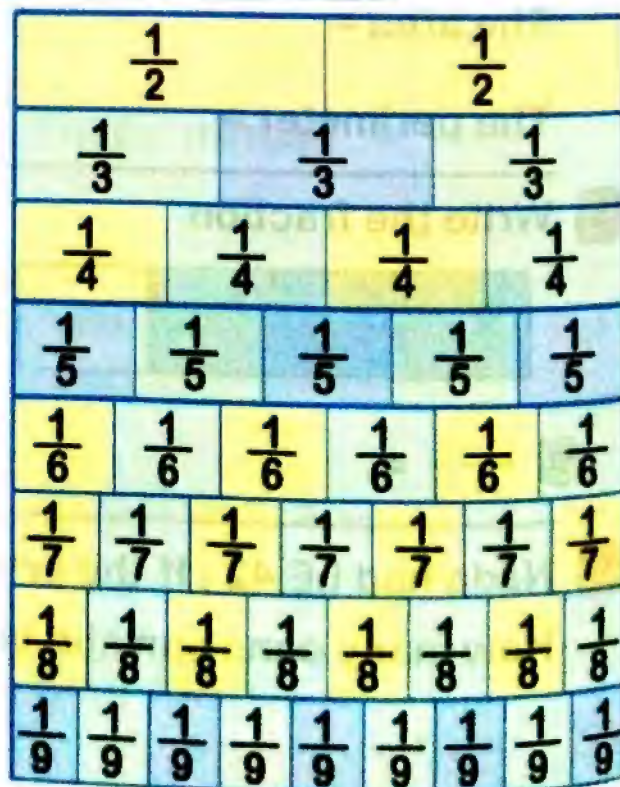
- a** Rami has a long piece of wood. He needs to cut it into enough pieces to share with his 7 friends.



- b** Samir had a candy bar. He took 2 days to eat it and ate the same amount each day. On Monday, he ate 1 piece. On Tuesday, he ate 1 more piece.







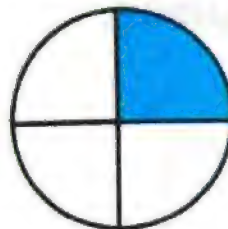


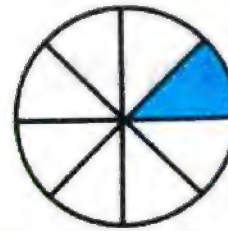




**Example**






2 Write the fraction, then compare using "<, = and >"

a		$\frac{\quad}{\quad}$		$\frac{\quad}{\quad}$	
b		$\frac{\quad}{\quad}$		$\frac{\quad}{\quad}$	
c		$\frac{\quad}{\quad}$		$\frac{\quad}{\quad}$	
d		$\frac{\quad}{\quad}$		$\frac{\quad}{\quad}$	

3 Complete using "<, = or >:"

a  $\frac{1}{2}$    $\frac{1}{4}$

b  $\frac{1}{3}$    $\frac{1}{7}$

c  $\frac{1}{4}$    $\frac{1}{2}$

d  $\frac{1}{5}$    $\frac{1}{7}$

e  $\frac{1}{9}$    $\frac{1}{5}$

f  $\frac{1}{8}$    $\frac{1}{8}$

**1** Use fractional bars to represent the following situations, then write the value of each fraction as in the example.

- a** Rami has a long piece of wood. He needs to cut it into enough pieces to share with his 7 friends.

- b** Samir had a candy bar. He took 2 days to eat it and ate the same amount each day. On Monday, he ate 1 piece. On Tuesday, he ate 1 more piece.

- c** To make a garage for his toy truck, Kamal bends a rectangular piece of cardboard in half. He then bends each half in half again.

- d** Kamal bends a different piece of cardboard in thirds. He then bends each third in half again.

- e** Noran has a long loaf of bread. She wants to share it with 2 of her friends.



2 Write the fraction, then compare using "<, = and >"

a



.....  
—  
.....



.....  
—  
.....



b



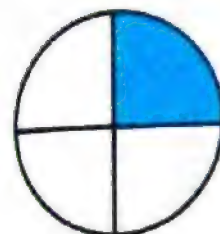
.....  
—  
.....



.....  
—  
.....



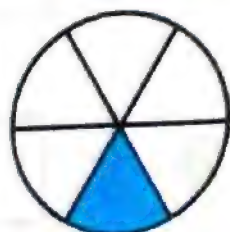
c



.....  
—  
.....



.....  
—  
.....



d



.....  
—  
.....



.....  
—  
.....



e



.....  
—  
.....



.....  
—  
.....



f



.....  
—  
.....



.....  
—  
.....



g



.....  
—  
.....



.....  
—  
.....



**3** Complete using  $<$ ,  $=$  or  $>$  :

**a**  $\frac{1}{2}$    $\frac{1}{6}$

**b**  $\frac{1}{3}$    $\frac{1}{7}$

**c**  $\frac{1}{4}$    $\frac{1}{8}$

**d**  $\frac{1}{5}$    $\frac{1}{9}$

**e**  $\frac{1}{6}$    $\frac{1}{2}$

**f**  $\frac{1}{7}$    $\frac{1}{3}$

**g**  $\frac{1}{8}$    $\frac{1}{4}$

**h**  $\frac{1}{3}$   1 Whole

**i**  $\frac{1}{2}$    $\frac{1}{8}$

**j**  $\frac{1}{9}$    $\frac{1}{7}$

**k**  $\frac{1}{4}$    $\frac{1}{6}$

**l**  $\frac{1}{5}$    $\frac{1}{5}$

**m**  $\frac{1}{6}$    $\frac{1}{4}$

**n**  $\frac{1}{9}$    $\frac{1}{3}$

**4** Rania needs  $\frac{1}{3}$  L of oil and  $\frac{1}{4}$  L of water to make a large batch of muffins. Will Rania use more oil or more water?

Explain your answer using pictures, numbers, and words below.

.....

.....

.....



## First Choose the correct answer

- a Seven ninths = ..... (  $\frac{7}{16}$  or  $\frac{9}{7}$  or  $\frac{7}{9}$  )
- b  $4 + 4 + 4 =$  ..... (  $4 \times 4$  or  $4 + 3$  or  $6 \times 2$  )
- c  $42 \times 10 =$  ..... (  $6 \times (7 \times 10)$  or  $(4 + 2) \times 10$  or  $(40 + 2) + 10$  )
- d  $4 \times 18 =$  ..... (  $4 \times (10 \times 8)$  or  $(4 \times 10) + 8$  or  $4 \times (10 + 8)$  )
- e  $\frac{1}{7}$    $\frac{1}{5}$  ( < or = or > )

## Second Complete the following

- a  $5 \times (3 \times 7) = (5 \times \dots) \times \dots$
- b 500 hundreds = ..... thousands
- c  $5 \times (8 + 9) = 5 \times \dots + 5 \times \dots = \dots + \dots = \dots$
- d The value of the digit 3 in the number 563 752 is .....
- e  $\frac{5}{8} =$  ..... ( In words )

## Third Answer the following

- a Rectangular window with a perimeter of 12 meters and a length of 4 meters. What is the width of the window?  
.....
- b With Zeiad a piece of cloth. He divided it into five equal parts and gave his sister two parts.  
Write the fraction for the remaining parts using Zeiad.  
.....
- c Hoda distributed 30 sweets equally among 6 of her friends  
How many pieces of candy does each girlfriend take?  
.....



LESSON

3

# Fraction as part of the set

## Units of measurement of mass

REMEMBER

**Gram  
(gm)**

It is used to measure  
the mass of light objects

and

**Kilogram  
(kg)**


It is used to measure  
the mass of heavy objects

**1** Decide which would be the best unit of measurement for weighing each object. Circle your answer.

**a**

grams (gm)


kilograms (kg)



**d**

grams (gm)


kilograms (kg)



**b**

grams (gm)


kilograms (kg)



**e**

grams (gm)


kilograms (kg)



**c**

grams (gm)


kilograms (kg)



**f**

grams (gm)

kilograms (kg)



**A set is a group of pupils**

There are 6 pupils

★ 4 of the pupils are boys

$\frac{4}{6}$  or  $\frac{2}{3}$  of the set are boys.

★ 2 of the pupils are girls

$\frac{2}{6}$  or  $\frac{1}{3}$  of the set are girls.





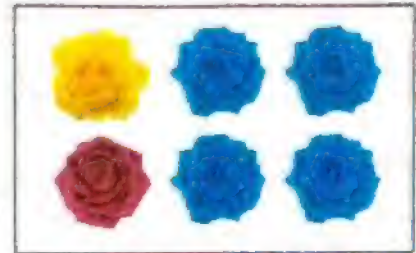
**2** Complete

- a The fraction of the red apples = .....
- b The fraction of the green apples = .....
- c The fraction of the apples have leaves = .....



**3** Complete

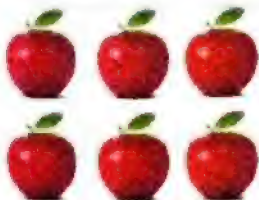
- a The fraction of the red flowers = .....
- b The fraction of the blue flowers = .....
- c The fraction of the yellow flowers = .....



- 4** Laila picked 8 flowers for her mom. One of them was pink and the rest were red. What fraction of the set were pink? Draw a representation of this story and then solve.



**5** Circle according to the fraction :



$$\frac{1}{3}$$



$$\frac{1}{4}$$



$$\frac{3}{4}$$



$$\frac{1}{4}$$




**1** Decide which would be the best unit of measurement for weighing each object. Circle your answer.

**a**

grams (gm)


kilograms (kg)



**b**

grams (gm)


kilograms (kg)



**c**

grams (gm)


kilograms (kg)



**d**

grams (gm)


kilograms (kg)



**e**

grams (gm)


kilograms (kg)



**f**

grams (gm)


kilograms (kg)



**g**

grams (gm)


kilograms (kg)



**h**

grams (gm)


kilograms (kg)



**i**

grams (gm)


kilograms (kg)



**j**

grams (gm)


kilograms (kg)



**k**

grams (gm)


kilograms (kg)



**l**

grams (gm)


kilograms (kg)



**m**

grams (gm)


kilograms (kg)



**n**

grams (gm)


kilograms (kg)



**o**

grams (gm)


kilograms (kg)



**p**

grams (gm)

kilograms (kg)



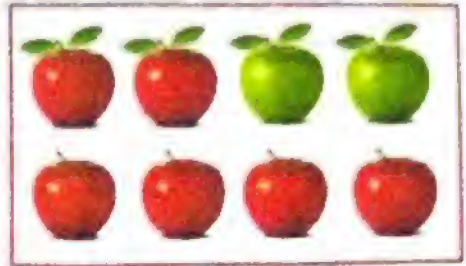


## 2 Complete the following

a ① The fraction of the red apples = .....

② The fraction of the green apples = .....

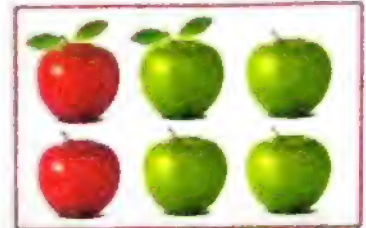
③ The fraction of the apples have leaves = .....



b ① The fraction of the red apples = .....

② The fraction of the green apples = .....

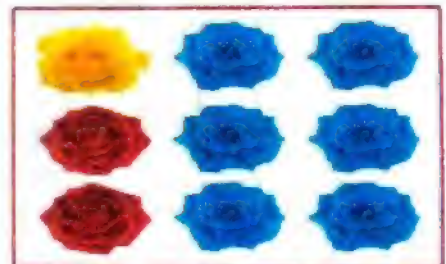
③ The fraction of the apples have leaves = .....



c ① The fraction of the red flowers = .....

② The fraction of the blue flowers = .....

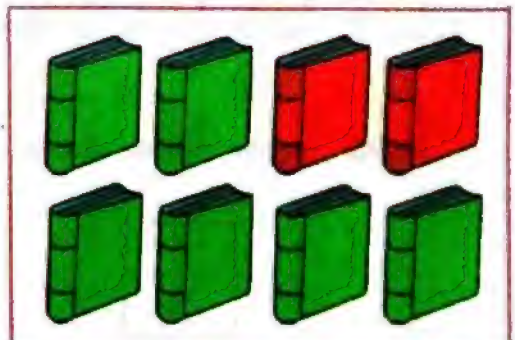
③ The fraction of the yellow flowers = .....



d ① The fraction of the red books = .....

② The fraction of the green books = .....

③ The fraction of the red and green books = .....



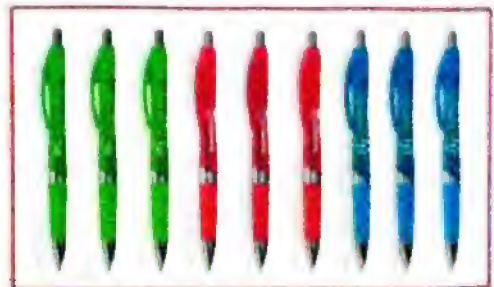
e ① The fraction of the red pens = .....

② The fraction of the green pens = .....

③ The fraction of the red and green pens = .....

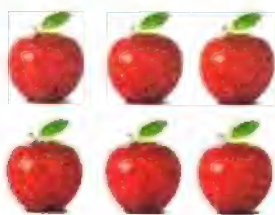
④ The fraction of the blue pens = .....

⑤ The fraction of the blue and green pens = .....





3 Circle according to the fraction :



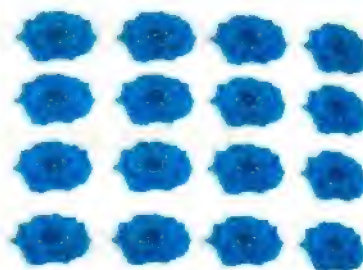
$$\frac{1}{3}$$



$$\frac{1}{4}$$



$$\frac{3}{4}$$



$$\frac{1}{4}$$



$$\frac{1}{3}$$



$$\frac{1}{4}$$



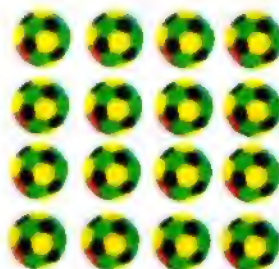
$$\frac{3}{4}$$



$$\frac{1}{4}$$



$$\frac{1}{2}$$



$$\frac{3}{4}$$



$$\frac{2}{3}$$



$$\frac{1}{2}$$



$$\frac{3}{4}$$



$$\frac{2}{3}$$



## First Choose the correct answer

- a Sixty thousand , seven hundred and ninety six = .....  
( 6 796 or 60 796 or 67 096 )
- b  $4 + 4 + 4 + 4 + 4 =$  ..... ( 4 + 5 or  $4 \times 5$  or  $4 \times 4$  )
- c  $8 \times 20 =$  ..... (  $8 \times (10 \times 10)$  or  $8 \times (4 + 5)$  or  $16 \times 10$  )
- d 8 000 hundreds = ..... tens ( 8000 or 80 000 or 800 000 )
- e  $\frac{1}{5}$    $\frac{1}{3}$  ( < or = or > )

## Second Complete the following

- a  $\frac{3}{8} =$  ..... ( In words )
- b Five sevenths =  $\frac{\quad}{\quad}$  ( in digits )
- c  $5 \times (5 \times 10) = 5 \times \dots = \dots$
- d  $6 \times 3 = \dots + \dots + \dots$
- e The greatest 5-digit number formed form the digits ( 3 , 2 and 4 ) is .....

## Third Answer the following

a



- ① How many objects are in the set? .....
- ② What fraction of the set are cars?  $\frac{\quad}{\quad}$
- ③ What fraction of the set is the rocket?  $\frac{\quad}{\quad}$
- ④ What fraction of the set is the airplane?  $\frac{\quad}{\quad}$

## b Write the fraction that represents the shaded part





LESSON

4

Compare fractions for different units

1 Identify the error. Then, solve the problem on your own:

a The fraction that represents the shaded part =  $\frac{1}{3}$

The right solution



b The fraction that represents the shaded part =  $\frac{1}{4}$

The right solution



c The fraction that represents the shaded part =  $\frac{1}{3}$

The right solution



d The fraction that represents the red apple is  $\frac{4}{5}$

The right solution



Which is more

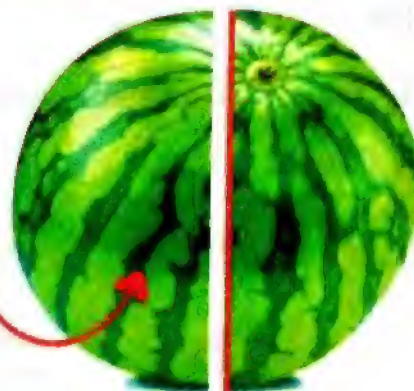
half of an orange or half of a watermelon?



$\frac{1}{2}$



$\frac{1}{2}$



A fourth of the number of apples in each basket

12 Apples



$\frac{1}{4}$

3 apples



8 Apples



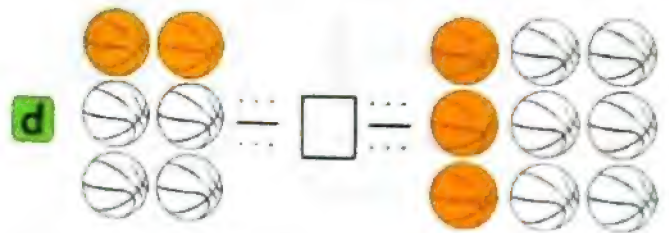
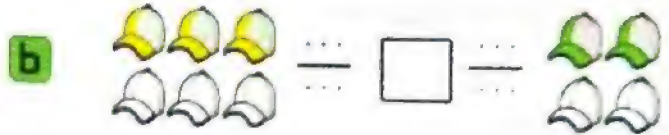
$\frac{1}{4}$

2 apples



Fractions are not equal if the units are not equal  
Fractions are not equal if the sets are not equal in number

2 Write the fraction and then, Complete using  $<$ ,  $=$  or  $>$  :



e Half of a minute  Half of an hour

f Half of an orange  Half of a watermelon

1 Whole									
$\frac{1}{2}$					$\frac{1}{2}$				
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$	$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$		$\frac{1}{7}$	
$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	
$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$		$\frac{1}{9}$	

$\frac{2}{2} = 1$  [ Two halves ]

$\frac{3}{3} = 1$  [ Three Thirds ]

$\frac{4}{4} = 1$  [ Four fourths ]

$\frac{5}{5} = 1$  [ Five fifths ]

$\frac{6}{6} = 1$  [ six sixths ]

$\frac{7}{7} = 1$  [ Seven sevenths ]

$\frac{8}{8} = 1$  [ Eight eighths ]

$\frac{9}{9} = 1$  [ Nine ninths ]

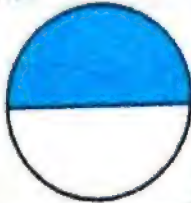
$$1 = \frac{2}{2} = \frac{3}{3} = \frac{4}{4} = \frac{5}{5} = \frac{6}{6} = \frac{7}{7} = \frac{8}{8} = \frac{9}{9}$$



1 Identify the error. Then, solve the problem on your own.


a The fraction that represents the shaded part =  $\frac{1}{3}$

The right solution




g The fraction that represents the shaded part =  $\frac{1}{3}$

The right solution




b The fraction that represents the shaded part =  $\frac{3}{4}$

The right solution




h The fraction that represents the shaded part =  $\frac{2}{5}$

The right solution




c The fraction that represents the shaded part =  $\frac{3}{5}$

The right solution




i The fraction that represents the shaded part =  $\frac{3}{6}$

The right solution




d The fraction that represents the shaded part =  $\frac{3}{5}$

The right solution




j The fraction that represents the shaded part =  $\frac{3}{9}$

The right solution



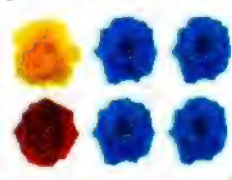
e The fraction that represents the red apple =  $\frac{1}{3}$

The right solution




k The fraction that represents the blue flowers =  $\frac{4}{2}$

The right solution




f The fraction that represents the green books =  $\frac{3}{4}$

The right solution



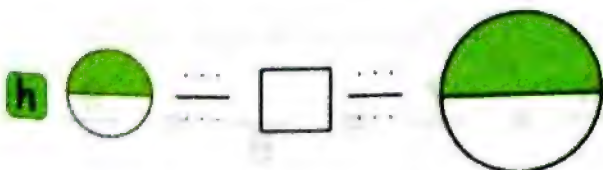
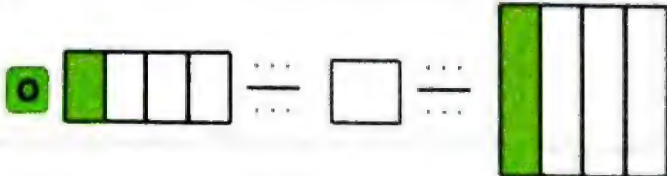
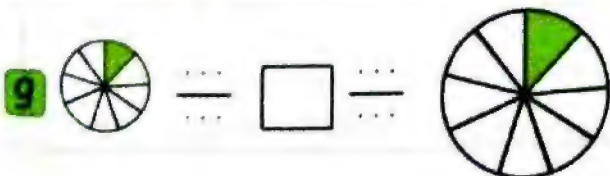
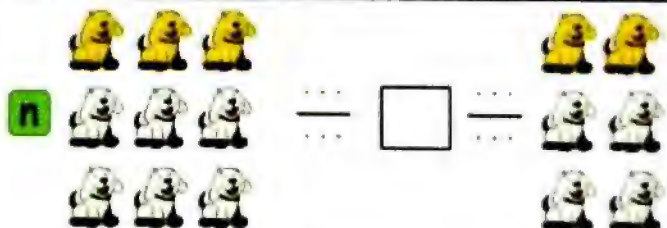
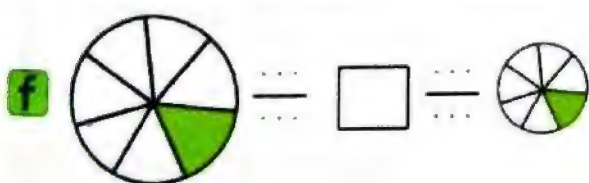
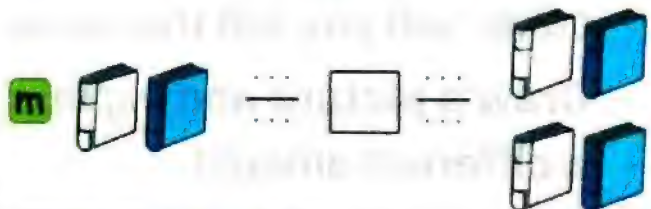
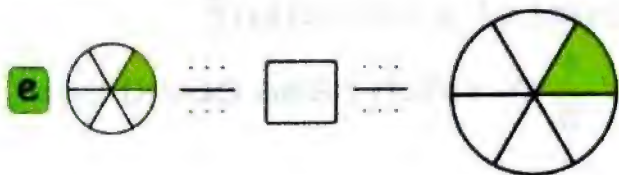
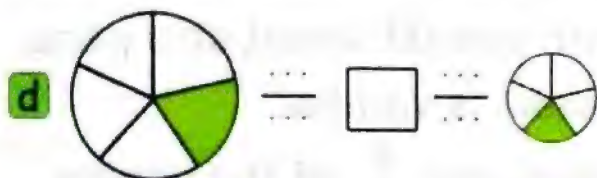
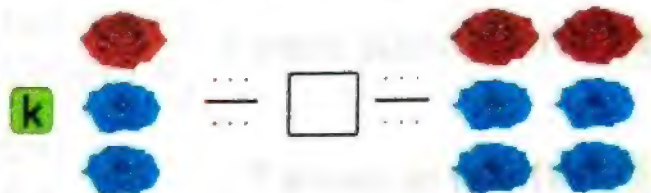
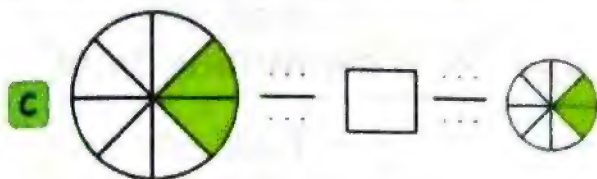
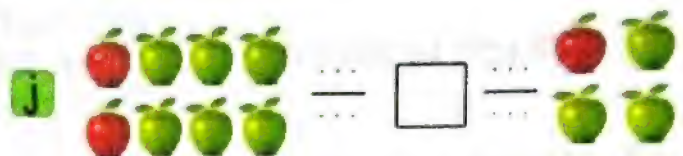
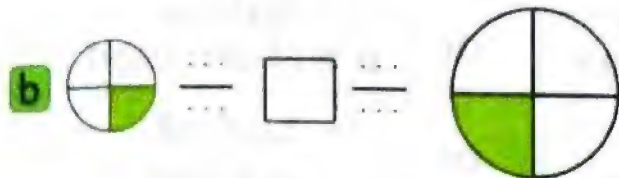
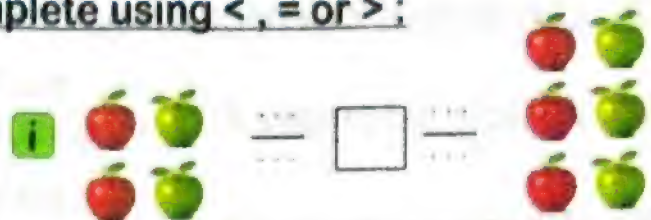
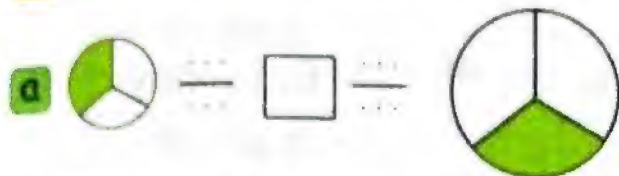
l The fraction that represents the blue pens =  $\frac{3}{5}$

The right solution





**2** Write the fraction and then, Complete using <, = or > :



**3** Circle the correct answers:

- |                            |  |    |  |
|----------------------------|--|----|--|
| <b>a</b> Which is longer?  | <div>half of<br/>lunchtime</div>         | or | <div>half of<br/>Saturday</div>        |
| <b>b</b> Which is longer?  | <div>half of<br/>a minute</div>          | or | <div>half of<br/>an hour</div>         |
| <b>c</b> Which is more?    | <div>half of<br/>an orange</div>         | or | <div>half of<br/>a watermelon</div>    |
| <b>d</b> Which is more?    | <div>half of<br/>a cookie</div>          | or | <div>half of<br/>a cake</div>          |
| <b>e</b> Which holds more? | <div>half of<br/>a glass for water</div> | or | <div>half of<br/>a swimming pool</div> |
| <b>f</b> Which is more?    | <div>half of<br/>a liter</div>           | or | <div>half of<br/>a milliliter</div>    |

**4** Two friends baked you a cake with two different size pans. One cake is chocolate and one cake is vanilla.

If you eat  $\frac{1}{3}$  of the chocolate cake and  $\frac{1}{3}$  of the vanilla cake, will you eat the same amount of each cake?

Draw a picture and explain how  $\frac{1}{3}$  of each cake could be a different amount.

**5** Complete :

$$1 = \frac{2}{2} = \frac{3}{3} = \frac{4}{4} = \frac{5}{5} = \frac{6}{6} = \frac{7}{7} = \frac{8}{8} = \frac{9}{9}$$



## First Choose the correct answer

- a Half of a glass for water ☐ Half of a swimming pool  
( < or = or > )
- b  $\frac{1}{3}$  of 15 = .....  
( 1 or 3 or 5 )
- c  $3 + 3 + 3 + 3 =$  .....  
(  $3 \times 4$  or  $3 + 4$  or  $3 \times 3$  )
- d  $(5 + 2) \times (5 + 3) =$  .....  
(  $5 + 5$  or  $5 \times 5$  or  $7 \times 8$  )
- e  $(3 \times 5) \times 4 =$  .....  
(  $15 + 4$  or  $8 \times 4$  or  $3 \times 20$  )

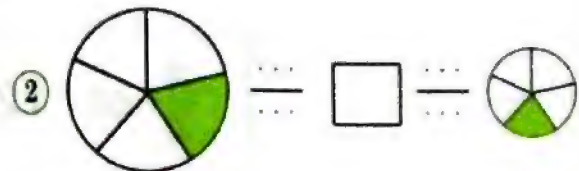
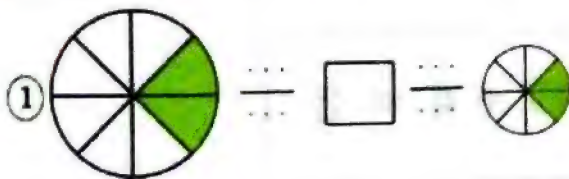
## Second Complete the following

- a  $4 \times 9 = (4 \times 3) + (4 \times \dots) = \dots + \dots = \dots$
- b  $5 \times \dots = 3 \times 10$
- c The number that comes right after 12 099 is .....
- d There are ..... fifths in whole one
- e The fraction that represents the shaded part =  $\frac{\dots}{\dots}$



## Third Answer the following

- a Write the fraction and then, Complete using < , = or > :



- b Find the result :

①  $7 \times 9 = \dots$       ②  $45 \div 9 = \dots$       ③  $64 \div 8 = \dots$

- c Ali has 8 sweets with him, and Ahmed has 12 pieces of the same sweets. Each of them ate half of what he had. Who ate the most?
- .....
- .....

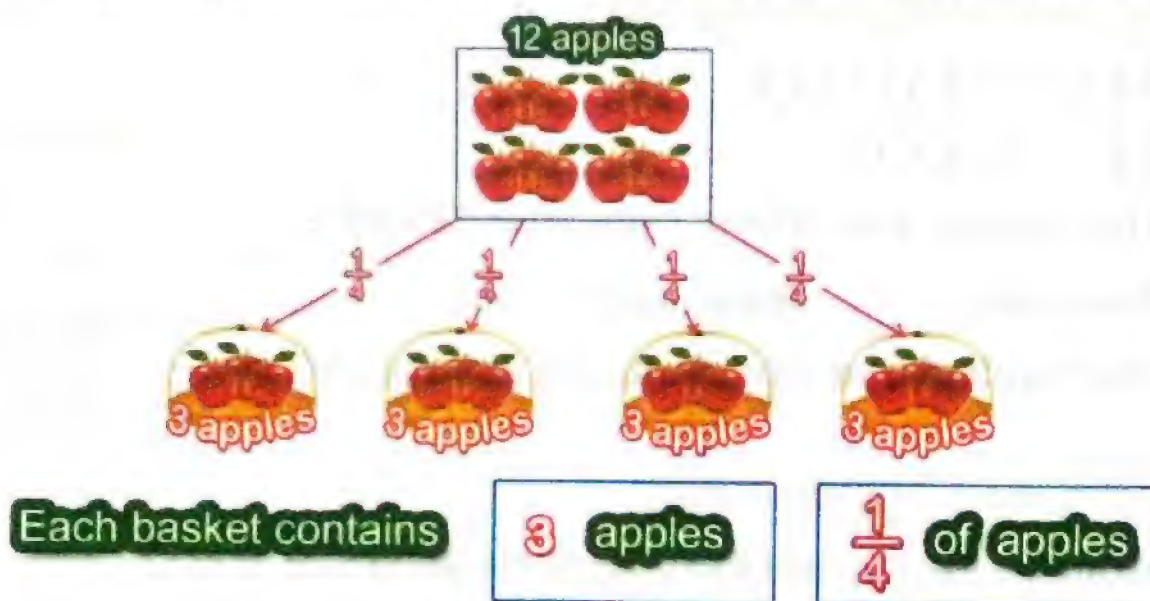


LESSON 5

# The Relationship between Division and Fractions

Mohamed has 12 apples to gift,  
If he divides the apples equally among 4 friends,  
How many apples will each friend get?

Dividing 12 apples means dividing the apples into four equal parts



$$\frac{1}{4} \text{ of } 12 = 12 \div 4 = 3$$

$$\frac{1}{3} \text{ of the number } 18 = 18 \div 3 = 6$$

Example

$$\frac{1}{5} \text{ of the number } 20 = 20 \div 5 = 4$$

$$\frac{1}{8} \text{ of the number } 48 = 48 \div 8 = 6$$



**1** Complete :

**a**  $40 \div 5 = \dots\dots\dots$

**d**  $81 \div 9 = \dots\dots\dots$

**b**  $24 \div 4 = \dots\dots\dots$

**e**  $36 \div 6 = \dots\dots\dots$

**c**  $12 \div 6 = \dots\dots\dots$

**f**  $60 \div 6 = \dots\dots\dots$

**g**  $\frac{1}{2}$  of the number 16 =  $\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$

**h**  $\frac{1}{3}$  of the number 15 =  $\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$

**i**  $\frac{1}{4}$  of the number 32 =  $\dots\dots\dots \div \dots\dots\dots = \dots\dots\dots$

**2** Omar bought a 6-pack of soda to give equally to his 6 guests. How many cans of soda will each guest receive? Write your answer as a division problem and as a fraction of the 6-pack.

.....  
.....

$$1 > \frac{1}{2} > \frac{1}{3} > \frac{1}{4} > \frac{1}{5} > \frac{1}{6} > \frac{1}{7} > \frac{1}{8} > \frac{1}{9}$$

**3** Arrange the following fractions in an ascending order

$$\frac{1}{8}, \frac{1}{9}, \frac{1}{3}, \frac{1}{2}$$

The order :  $\dots\dots\dots$ ,  $\dots\dots\dots$ ,  $\dots\dots\dots$ ,  $\dots\dots\dots$

$$1 \text{ hour} = 60 \text{ minutes}$$

$$\frac{1}{2} \text{ hour} = 30 \text{ minutes}$$

$$\frac{1}{3} \text{ hour} = 20 \text{ minutes}$$

$$\frac{1}{4} \text{ hour} = 15 \text{ minutes}$$

- 4 Heba and Amira walk to school together. It takes Heba  $\frac{1}{2}$  an hour to walk to Amirah's house. It takes Heba and Amira  $\frac{1}{4}$  of an hour to walk to school together.

How many minutes in all does it take Heba to walk to school?  
solve the problem and explain your thinking.

- 5 Who eats the most ...? (Draw a model to explain your answer)

- a Menna ate  $\frac{1}{2}$  of the pizza and Mariam ate  $\frac{1}{3}$  of the pizza .

- b Ahmed ate  $\frac{1}{6}$  of the watermelon and Bassem  $\frac{1}{9}$  of the watermelon



**1** Complete :

**a**  $24 \div 4 = \dots\dots\dots$

**h**  $12 \div 2 = \dots\dots\dots$

**b**  $35 \div 5 = \dots\dots\dots$

**i**  $48 \div 6 = \dots\dots\dots$

**c**  $\dots\dots \div 4 = 8$

**j**  $\dots\dots \div 6 = 7$

**d**  $\dots\dots \div 6 = 3$

**k**  $\dots\dots \div 9 = 9$

**e**  $14 \div \dots\dots = 7$

**l**  $36 \div \dots\dots = 4$

**f**  $72 \div \dots\dots = 9$

**m**  $21 \div \dots\dots = 3$

**g**  $90 \div 10 = \dots\dots\dots$

**n**  $22 \div \dots\dots = 11$

**2** Complete :

**a**  $\frac{1}{2}$  of the number 20 =  $\dots\dots \div \dots\dots = \dots\dots$

**b**  $\frac{1}{3}$  of the number 12 =  $\dots\dots \div \dots\dots = \dots\dots$

**c**  $\frac{1}{4}$  of the number 28 =  $\dots\dots \div \dots\dots = \dots\dots$

**d**  $\frac{1}{5}$  of the number 35 =  $\dots\dots \div \dots\dots = \dots\dots$

**e**  $\frac{\dots\dots}{\dots\dots}$  of the number  $\dots\dots = 54 \div 6 = \dots\dots$

**f**  $\frac{\dots\dots}{\dots\dots}$  of the number  $\dots\dots = 63 \div 7 = \dots\dots$

**g**  $\frac{\dots\dots}{\dots\dots}$  of the number  $\dots\dots = 64 \div 8 = \dots\dots$

- 3** Omar bought a 6-pack of soda to give equally to his 6 guests. How many cans of soda will each guest receive?  
Write your answer as a division problem and as a fraction of the 6-pack.
- .....
- .....

- 4** Khaled distributed 24 fish evenly over 3 ponds. What is the fraction of the number of fish in each tank?  
What is the number of fish in each tank?
- .....
- .....

- 5** Maryam distributed 45 books equally on 5 shelves. What is the fraction of the number of books in each shelf?  
How many books are there in each shelf?
- .....
- .....

- 6** Arrange the following fractions in an ascending order

**a**  $\frac{1}{9}$ ,  $\frac{1}{3}$ ,  $\frac{1}{7}$ ,  $\frac{1}{5}$  The order : ....., ....., ....., .....

**b**  $\frac{1}{4}$ , 1,  $\frac{1}{2}$ ,  $\frac{1}{6}$  The order : ....., ....., ....., .....

- 7** Arrange the following fractions in a deascending order

**a**  $\frac{1}{6}$ ,  $\frac{1}{9}$ , 1,  $\frac{1}{7}$  The order : ....., ....., ....., .....

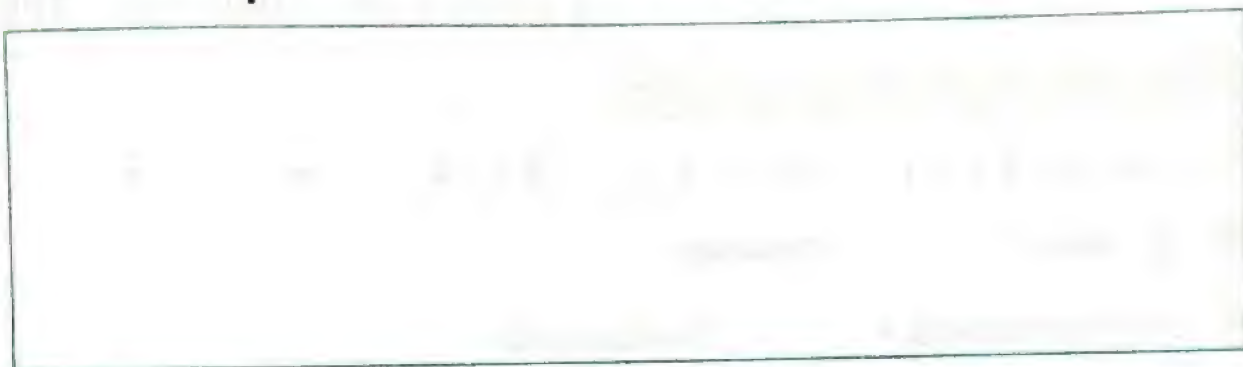
**b**  $\frac{1}{3}$ ,  $\frac{1}{8}$ ,  $\frac{1}{5}$ ,  $\frac{1}{4}$  The order : ....., ....., ....., .....



- 8 Ahmed walks for  $\frac{1}{3}$  hour every day and continues for  $\frac{1}{4}$  hour. How many minutes does Ahmed take to exercise?

- 9 Who eats the most ...? (Draw a model to explain your answer)

- a Islam ate  $\frac{1}{7}$  from the cake. And Hoda ate  $\frac{1}{5}$  the cake.



- b Marwan ate  $\frac{1}{4}$  of a piece of chocolate, and Basma ate  $\frac{1}{3}$  of a piece of chocolate



- c Ahmed ate  $\frac{1}{2}$  an orange and Bassem ate  $\frac{1}{3}$  of an orange



**First** Choose the correct answer

- a The number of sixths in the whole one = .....  
( 1 or 5 or 6 )
- b  $5 \times (6 \times 2) = \dots\dots\dots$  (  $5 \times 8$  or  $5 \times (10 + 2)$  or  $30 \times 6$  )
- c  $\dots\dots\dots \div 6 = 8$  ( 48 or 14 or 24 )
- d  $6 + 6 + 6 + 6 = \dots\dots\dots$  (  $6 + 4$  or  $2 \times 3 \times 4$  or  $6 \times 6$  )
- e The value of the digit 7 in the number 57 893 is .....  
( 70 000 or 7 000 or 700 )

**Second** Complete the following

- a  $9 \times (4 + 5) = (\dots\dots \times 4) + (\dots\dots \times 5) = \dots\dots + \dots\dots = \dots\dots$
- b  $\frac{1}{4}$  hour = ..... minutes
- c 500 hundreds = ..... Thousands
- d  $\frac{1}{5}$  of the number 40 = .....
- e  $1 = \frac{\dots\dots}{9}$

**Third** Answer the following

- a Arrange the following fractions in an ascending order :

$$\frac{1}{9} , 1 , \frac{1}{4} , \frac{1}{7}$$

..... , ..... , ..... , .....

- b Mahmoud studied mathematics for  $\frac{1}{3}$  hour.

And he studied Arabic language for  $\frac{1}{4}$  hour.

What subject did you spend more time studying?



# CHAPTER

## Three



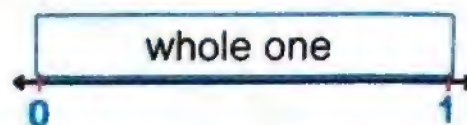
LESSON

1

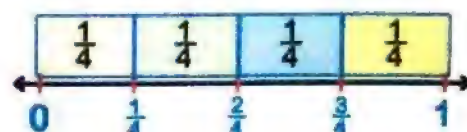
# Fractions on a number line



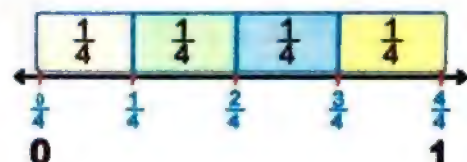
The whole one (**whole unit**) represents the distance from zero to 1 on the number line



We divide the number line into equal parts according to the denominator



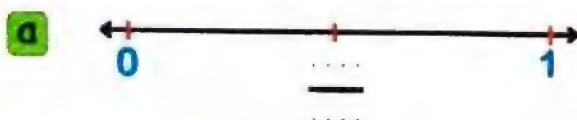
We get a number line divided into 4 equal parts by a part that is  $\frac{1}{4}$



$$0 = \frac{0}{4}$$

$$1 = \frac{4}{4}$$

## 1 Write the fraction on the number line



## 2 Use a number line to represent the following fractions :





- 3 At the park, there was a straight 1-kilometer path. Every  $\frac{1}{6}$  of the path, there was a drinking fountain. Use the number line to identify where each drinking fountain was located.



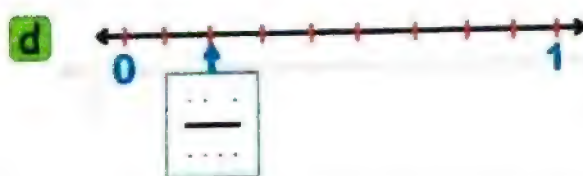
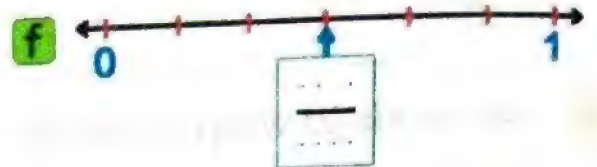
- 4 Ali needs to wrap presents. He lays the ribbon flat and says, "If I make 3 equally spaced cuts, I will have just enough pieces. I can use 1 piece for each present. " Draw a number line to show Ali's ribbon and the cuts he will make:



- 5 Complete The following table ( as in the example )

	Fraction	Divide	Represent on the number line
Example	$\frac{3}{4}$		
a	$\frac{2}{6}$		
b	$\frac{1}{3}$		
c	$\frac{4}{7}$		

1 Write the fraction on the number line



2 Use a number line to represent the following fractions :





**3** Use the number line to represent each of the following :

- a** Mariam is planting flowers in her 1-meter-long rectangular plant box. She divides the plant box into sections  $\frac{1}{8}$  of a meter in length. She then plants 1 seed in each section.



- b** Ziad wanted to cut a 1-meter piece of rope into equal pieces for his 4 friends.



















- c** They stopped every  $\frac{1}{8}$  of a mile to let the sister rest. Draw a number line to show the spots along the line where they stopped.



- d** Omar had a meter of wood. He needed  $\frac{1}{3}$  of the meter for a bird house.



**4** Complete The following table

	Fraction	Divide	Represent on the number line
<b>a</b>	$\frac{3}{4}$		
<b>b</b>	$\frac{1}{2}$		
<b>c</b>	$\frac{1}{3}$		
<b>d</b>	$\frac{5}{8}$		
<b>e</b>	$\frac{2}{6}$		
<b>f</b>	$\frac{2}{4}$		
<b>g</b>	$\frac{4}{7}$		
<b>h</b>	$\frac{1}{5}$		



## First Choose the correct answer

a The fraction represented on the number line is :



(  $\frac{2}{3}$  or  $\frac{2}{4}$  or  $\frac{2}{5}$  )

b  $\frac{1}{4}$    $\frac{1}{6}$

( < or = or > )

c  $2 \times (4 + 5) = \dots\dots$

(  $9 + 9$  or  $(2 \times 4) \times 5$  or  $2 \times 20$  )

d  $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = \dots\dots$

(  $2 \times 2$  or  $4 \times 4$  or  $2 + 8$  )

e  $8 \times 40 = \dots\dots$

(  $32 \times 10$  or  $12 \times 10$  or  $40 + 8$  )

## Second Complete the following

a There are ..... fifths in the whole one .

b  $(6 \times 5) + (6 \times 5) = 6 \times (\dots\dots + \dots\dots) = 6 \times \dots\dots = \dots\dots$

c  $47\ 047 = 47 + \dots\dots$

d  $5 \times 3 = \dots\dots + \dots\dots + \dots\dots$

e  $1 = \frac{\dots\dots}{6}$

## Third Answer the following

a Divide 15 students into 3 groups evenly

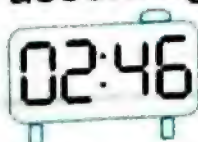
① What is the fraction of the number of students in each group?

② How many students are in each group?

③ Represet this  
on a number line



b Draw the hands according to  
time shown .



LESSON

2

# Fraction Comparison Using The Number Line

( Which has a common numerator )

$$\frac{1}{4} > \frac{1}{8}$$



( Which has a common denominator )

$$\frac{3}{6} < \frac{5}{6}$$



1 Represent each of the following fractions on a number line

EX

$$\frac{2}{3}$$



a

$$\frac{3}{5}$$



b

$$\frac{1}{6}$$



c

$$\frac{6}{9}$$







**2** Represent each of the following fractions on the number line, and then complete using ( $<$ ,  $=$  or  $>$ )

**a**


$\frac{1}{6}$    $\frac{1}{2}$


$\frac{1}{6}$  

$\frac{1}{2}$  

**b**


$\frac{1}{5}$    $\frac{1}{4}$


$\frac{1}{5}$  

$\frac{1}{4}$  

**c**


$\frac{2}{9}$    $\frac{2}{5}$


$\frac{2}{9}$  

$\frac{2}{5}$  

**d**


$\frac{3}{4}$    $\frac{3}{8}$

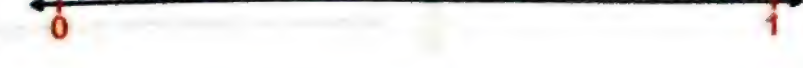
$\frac{3}{4}$  

$\frac{3}{8}$  

**e**

$\frac{4}{6}$    $1$

$\frac{4}{6}$  

$1$  

- 3** Draw a model for each fraction and then compare using ( $<$ ,  $=$  or  $>$ )  
You may draw number lines, pictures or models to represent:

**a**

$$\frac{1}{2} \square \frac{1}{5}$$

$$\frac{1}{2}$$



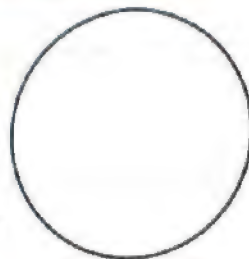
$$\frac{1}{5}$$



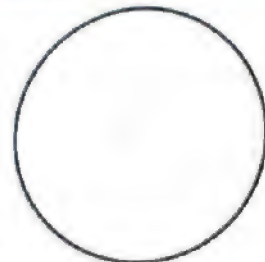
**b**

$$\frac{1}{7} \square \frac{1}{4}$$

$$\frac{1}{7}$$



$$\frac{1}{4}$$



**c**

$$\frac{1}{6} \square \frac{1}{3}$$

$$\frac{1}{6}$$



$$\frac{1}{3}$$



**d**

$$\frac{3}{4} \square \frac{3}{6}$$

$$\frac{3}{4}$$



$$\frac{3}{6}$$



**e**

$$\frac{5}{8} \square \frac{5}{6}$$

$$\frac{5}{8}$$



$$\frac{5}{6}$$





**1** Represent each of the following fractions on a number line



2 Represent each of the following fractions on the number line, and then complete using ( $<$ ,  $=$  or  $>$ )

a

$$\frac{1}{2} \square \frac{1}{6}$$



b

$$\frac{1}{4} \square \frac{1}{9}$$



c

$$\frac{1}{5} \square \frac{1}{8}$$



d

$$\frac{2}{8} \square \frac{5}{8}$$



e

$$\frac{5}{6} \square \frac{2}{6}$$





f

$$\frac{5}{7} \square \frac{2}{7}$$



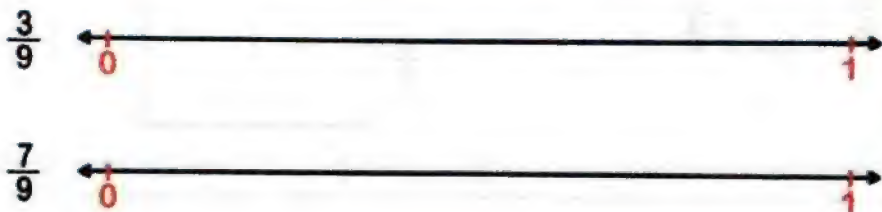
g

$$1 \square \frac{3}{5}$$



h

$$\frac{3}{9} \square \frac{7}{9}$$



**3** Draw a model for each fraction and then compare using ( $<$ ,  $=$  or  $>$ ).  
You may draw number lines, pictures or models to represent:

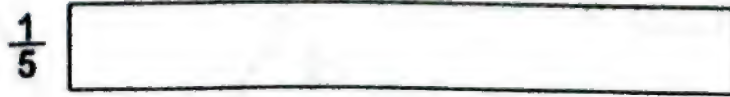
a

$$\frac{1}{4} \square \frac{1}{6}$$



b

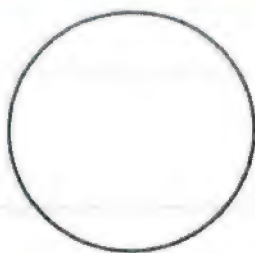
$$\frac{1}{9} \square \frac{1}{5}$$



c

$$\frac{2}{4} \square \frac{3}{4}$$

$\frac{2}{4}$



$\frac{3}{4}$



d

$$\frac{1}{5} \square \frac{1}{2}$$

$\frac{1}{5}$

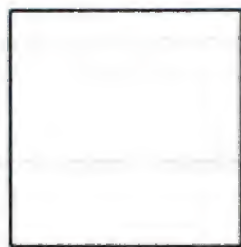


$\frac{1}{2}$



$$\frac{4}{8} \square \frac{1}{2}$$

$\frac{4}{8}$



$\frac{1}{2}$



e

$$\frac{2}{8} \square \frac{2}{5}$$

$\frac{2}{8}$



$\frac{2}{5}$



f

$$\frac{4}{7} \square 1$$

$\frac{4}{7}$



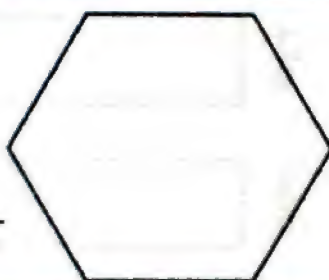
1



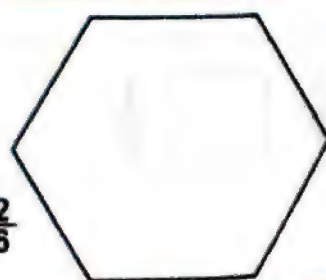
g

$$\frac{1}{3} \square \frac{2}{6}$$

$\frac{1}{3}$



$\frac{2}{6}$





**4** Complete using  $<$ ,  $=$  or  $>$  :

**a**  $\frac{1}{3}$    $\frac{1}{6}$

**e**  $\frac{3}{3}$    $\frac{3}{6}$

**b**  $\frac{1}{7}$    $\frac{1}{2}$

**f**  $\frac{4}{9}$    $\frac{4}{7}$

**c**  $\frac{1}{5}$    $\frac{1}{9}$

**g**  $\frac{2}{9}$    $\frac{2}{5}$

**d**  $\frac{1}{8}$    $\frac{1}{4}$

**h**  $\frac{5}{6}$    $\frac{5}{8}$

**5** Arrange the following fractions :

**a**  $\frac{1}{4}$  ,  $\frac{1}{2}$  ,  $\frac{1}{3}$  ,  $\frac{1}{6}$

Ascending order : ..... , ..... , ..... , .....

Descending order : ..... , ..... , ..... , .....

**b**  $\frac{5}{7}$  ,  $\frac{6}{7}$  ,  $\frac{4}{7}$  ,  $\frac{3}{7}$

Ascending order : ..... , ..... , ..... , .....

Descending order : ..... , ..... , ..... , .....

**c**  $\frac{2}{5}$  ,  $\frac{2}{8}$  ,  $1$  ,  $\frac{2}{4}$

Ascending order : ..... , ..... , ..... , .....

Descending order : ..... , ..... , ..... , .....

**First** Choose the correct answer

- a  $\frac{2}{6}$  ☐  $\frac{5}{6}$  ( < or = or > )
- b 7 456 ☐ 7 502 ( < or = or > )
- c  $5 \times (4 \times 5) = \dots\dots\dots$  (  $4 \times 25$  or  $5 \times 9$  or  $4 \times (5 + 5)$  )
- d  $6 + 6 + 6 = \dots\dots\dots$  (  $3 \times 9$  or  $6 \times 3$  or  $6 + 3$  )
- e  $5 \times 12 = \dots\dots\dots$  (  $5 \times (10 + 2)$  or  $5 \times (10 \times 2)$  or  $5 \times (6 \times 6)$  )

**Second** Complete the following

- a The smallest 5-different digit number is  $\dots\dots\dots$
- b  $7 \times 80 = \dots\dots \times 10$
- c  $\dots\dots \div 6 = 7$
- d  $7 \times 6 + 7 \times 4 = 7 \times (\dots + \dots) = 7 \times \dots = \dots$
- e The fraction on the opposit  
number line is  $\dots\dots\dots$



**Third** Answer the following

- a Arrange in an ascending order :

$$\frac{7}{8}, \frac{6}{8}, \frac{1}{8}, \frac{5}{8}$$

The order :  $\dots\dots\dots$

$$75\ 214, 75\ 421, 75\ 124, 75\ 412$$

The order :  $\dots\dots\dots$

- b Farha had 8 bags of marbles. Each bag had 6 marbles inside.  
How many marbles did Farha have altogether?



LESSON

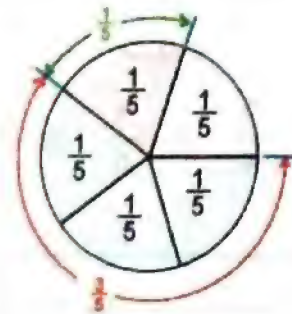
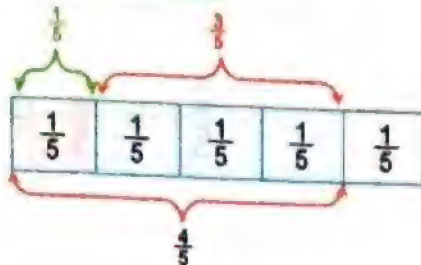
3

# Adding and Subtracting Fractions ( With commone denominators )

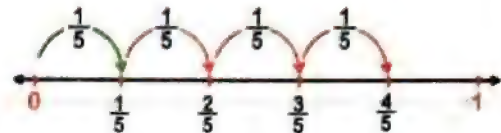
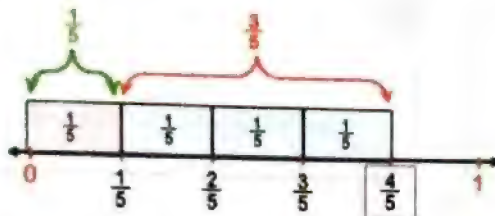
Example

Add :  $\frac{1}{5} + \frac{3}{5}$

Using Models



Using Number Line

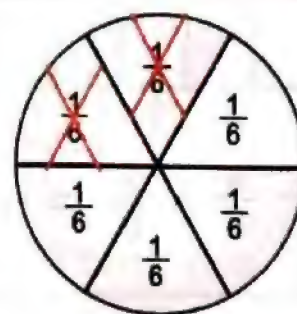


$$\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$$

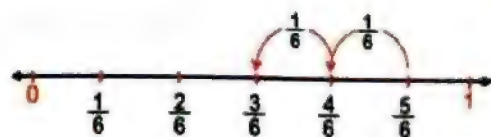
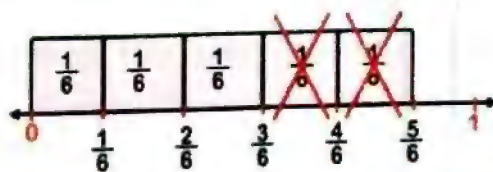
Example

Subtract :  $\frac{5}{6} - \frac{2}{6}$

Using Models



Using Number Line



$$\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$$

**1** Solve the addition and the subtraction problems below.

( Use models or number line to show your work. )

**a**



$$\frac{2}{4} + \frac{1}{4} = \frac{\dots}{\dots}$$

**b**



$$\frac{2}{5} + \frac{2}{5} = \frac{\dots}{\dots}$$

**c**



$$\frac{2}{7} + \frac{3}{7} = \frac{\dots}{\dots}$$

**d**



$$\frac{3}{8} + \frac{4}{8} = \frac{\dots}{\dots}$$

**e**



$$\frac{6}{8} - \frac{2}{8} = \frac{\dots}{\dots}$$

**f**



$$\frac{5}{5} - \frac{3}{5} = \frac{\dots}{\dots}$$

**g**



$$\frac{5}{6} - \frac{5}{6} = \frac{\dots}{\dots}$$

**h**



$$\frac{7}{9} - \frac{6}{9} = \frac{\dots}{\dots}$$



**2** Find the result:

a  $\frac{1}{4} + \frac{1}{4} = \frac{\dots}{\dots}$

e  $\frac{5}{6} - \frac{1}{6} = \frac{\dots}{\dots}$

b  $\frac{2}{6} + \frac{3}{6} = \frac{\dots}{\dots}$

f  $1 - \frac{1}{5} = \frac{\dots}{\dots}$

c  $\frac{3}{7} + \frac{4}{7} = \frac{\dots}{\dots} = \dots$

g  $\frac{5}{7} - \frac{2}{7} = \frac{\dots}{\dots}$

d  $\frac{2}{9} + \frac{4}{9} = \frac{\dots}{\dots}$

h  $\frac{5}{8} - \frac{5}{8} = \frac{\dots}{\dots}$

**3** Complete the following:

a  $\frac{3}{6} + \frac{\dots}{\dots} = \frac{5}{6}$

e  $\frac{\dots}{\dots} - \frac{1}{3} = \frac{1}{3}$

b  $\frac{2}{8} + \frac{\dots}{\dots} = \frac{6}{8}$

f  $\frac{\dots}{\dots} - \frac{1}{5} = \frac{2}{5}$

c  $\frac{\dots}{\dots} + \frac{3}{5} = \frac{4}{5}$

g  $\frac{7}{8} - \frac{\dots}{\dots} = \frac{2}{8}$

d  $\frac{\dots}{\dots} + \frac{2}{9} = \frac{8}{9}$

h  $1 - \frac{\dots}{\dots} = \frac{2}{7}$

**4** Mohamed ate  $\frac{1}{6}$  of his sandwich at snack time and  $\frac{3}{6}$  of his sandwich at lunch.

How much of his sandwich did he eat in all?

**1** Solve the addition problems below.

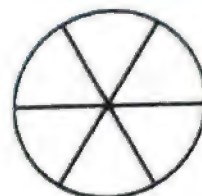
( Use models or number line to show your work. )

**a**



$$\frac{1}{5} + \frac{3}{5} = \frac{\dots}{\dots}$$

**b**



$$\frac{2}{6} + \frac{2}{6} = \frac{\dots}{\dots}$$

**c**



$$\frac{2}{8} + \frac{5}{8} = \frac{\dots}{\dots}$$

**d**



$$\frac{1}{3} + \frac{2}{3} = \frac{\dots}{\dots}$$

**e**



$$\frac{1}{3} + \frac{1}{3} = \frac{\dots}{\dots}$$

**f**



$$\frac{1}{4} + \frac{2}{4} = \frac{\dots}{\dots}$$

**g**



$$\frac{1}{5} + \frac{3}{5} = \frac{\dots}{\dots}$$

**h**



$$\frac{2}{9} + \frac{5}{9} = \frac{\dots}{\dots}$$



Solve the subtraction problems below.

( Use models or number line to show your work. )

a



$$\frac{2}{3} - \frac{1}{3} = \frac{\dots}{\dots}$$

b



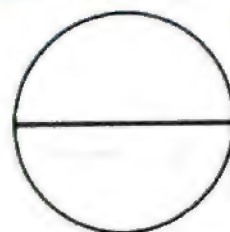
$$\frac{5}{6} - \frac{3}{6} = \frac{\dots}{\dots}$$

c



$$\frac{6}{9} - \frac{2}{9} = \frac{\dots}{\dots}$$

d



$$1 - \frac{1}{2} = \frac{\dots}{\dots}$$

e



$$\frac{3}{4} - \frac{1}{4} = \frac{\dots}{\dots}$$

f



$$\frac{4}{5} - \frac{3}{5} = \frac{\dots}{\dots}$$

g



$$\frac{2}{7} - \frac{2}{7} = \frac{\dots}{\dots}$$

h



$$\frac{7}{8} - \frac{3}{8} = \frac{\dots}{\dots}$$

**2** Find the result:

a  $\frac{1}{2} + \frac{1}{2} = \frac{\dots}{\dots} = \dots$

b  $\frac{3}{8} + \frac{3}{8} = \frac{\dots}{\dots}$

c  $\frac{1}{3} + \frac{1}{3} = \frac{\dots}{\dots}$

d  $\frac{6}{9} + \frac{3}{9} = \frac{\dots}{\dots} = \dots$

e  $\frac{1}{4} + \frac{2}{4} = \frac{\dots}{\dots}$

f  $\frac{3}{5} + \frac{1}{5} = \frac{\dots}{\dots}$

g  $\frac{2}{5} - \frac{2}{5} = \frac{\dots}{\dots} = \dots$

h  $\frac{4}{7} - \frac{2}{7} = \frac{\dots}{\dots}$

i  $\frac{3}{6} - \frac{2}{6} = \frac{\dots}{\dots}$

j  $\frac{4}{6} - \frac{1}{6} = \frac{\dots}{\dots}$

k  $\frac{5}{7} - \frac{1}{7} = \frac{\dots}{\dots}$

l  $\frac{7}{9} - \frac{1}{9} = \frac{\dots}{\dots}$

**3** Complete the following:

a  $\frac{\dots}{\dots} + \frac{2}{9} = \frac{5}{9}$

b  $\frac{\dots}{\dots} + \frac{3}{8} = \frac{6}{8}$

c  $\frac{\dots}{\dots} + \frac{1}{7} = \frac{5}{7}$

d  $\frac{1}{9} + \frac{\dots}{\dots} = \frac{7}{9}$

e  $\frac{2}{5} + \frac{\dots}{\dots} = \frac{3}{5}$

f  $\frac{1}{8} + \frac{\dots}{\dots} = \frac{7}{8}$

g  $\frac{6}{8} - \frac{\dots}{\dots} = \frac{2}{8}$

h  $\frac{5}{6} - \frac{\dots}{\dots} = \frac{3}{6}$

i  $\frac{3}{4} - \frac{\dots}{\dots} = \frac{1}{4}$

j  $\frac{\dots}{\dots} - \frac{2}{7} = \frac{2}{7}$

k  $\frac{\dots}{\dots} - \frac{1}{3} = \frac{2}{3}$

l  $\frac{\dots}{\dots} - \frac{3}{7} = \frac{4}{7}$



- 4 Omar brought  $\frac{2}{4}$  of a candy bar to the playground.  
He gave  $\frac{1}{4}$  of it to a friend. How much does he have left?
- .....

- 5 Maha and Nagi baked cakes that were the same size.  
Maha gave  $\frac{3}{4}$  of her cake to her class. Nagi gave  $\frac{1}{2}$  of his cake to his class. Which class received more cake, Maha's class or Nagi's class?
- .....

- 6 The juice container at Farida's house was  $\frac{5}{6}$  full.  
Farida drank  $\frac{5}{6}$  of the juice.  
How much juice was left in the container ?
- .....

- 7 Yesterday, Marwan ran  $\frac{2}{8}$  of a kilometer and then stopped to drink some water. After his water break, he ran another  $\frac{2}{8}$  of a kilometer.  
What fraction of a kilometer did Marwan run yesterday?
- .....

**First Choose the correct answer**

- a  $\dots + \frac{3}{7} = \frac{4}{7}$  (  $\frac{1}{7}$  or 1 or  $\frac{6}{7}$  )
- b 45 045  40 545 ( < or = or > )
- c  $5 + 5 + 5 + 5 + 5 + 5 = \dots$  (  $3 \times 10$  or  $5 \times 5$  or  $5 + 6$  )
- d  $5 \times (10 + 2) = \dots$  (  $5 \times 20$  or  $50 \times 10$  or  $6 \times 10$  )
- e  $\frac{2}{8}$    $\frac{2}{6}$  ( < or = or > )

**Second Complete the following**

- a  $\frac{1}{4} + \frac{3}{4} = \dots$
- b  $\frac{6}{9} - \frac{2}{9} = \dots$
- c There are  $\dots$  ninths in the whole one .
- d  $48 \times 10 = 6 \times \dots \times 10$
- e  $\dots - \frac{2}{5} = \frac{3}{5}$

**Third Answer the following**

- a Solve the subtraction problems below.

$$\frac{6}{9} - \frac{2}{9} = \underline{\hspace{2cm}}$$

--	--	--	--	--	--	--	--

- b Arrange in a descending order :

$$\frac{4}{6} , \frac{4}{9} , \frac{4}{5} , \frac{4}{7}$$

The order :  $\dots$  ,  $\dots$  ,  $\dots$  ,  $\dots$

- c A carton of milk capacity of 1 liter Ahmad drinks  $\frac{1}{4}$  a liter.  
What is the capacity of the remaining part of the milk?



# CHAPTER

## Four

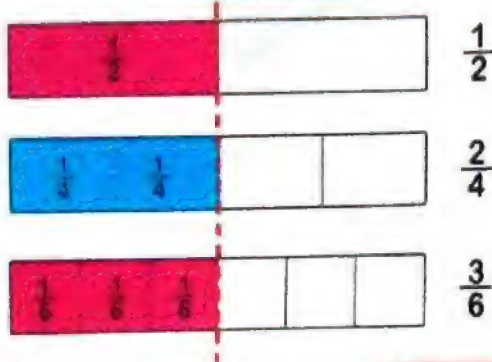
$$1\frac{1}{2} \quad 3\frac{3}{4}$$

# Equivalent Fractions

are two fractions of the same value

## Equivalent fractions

Cover the same unit area



## Equivalent fractions

On the same point on the number line



$$\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$$

We get equivalent fractions

If we multiply or divide both the numerator and the denominator by the same number

**Example**

$$\frac{2}{3} = \frac{4}{6}$$

$$\frac{2}{3} = \frac{4}{6} = \frac{12}{18}$$

$$\frac{2}{3} = \frac{8}{12} = \frac{14}{21}$$

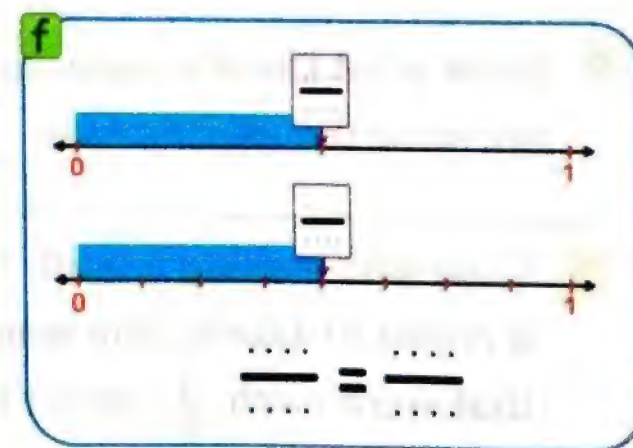
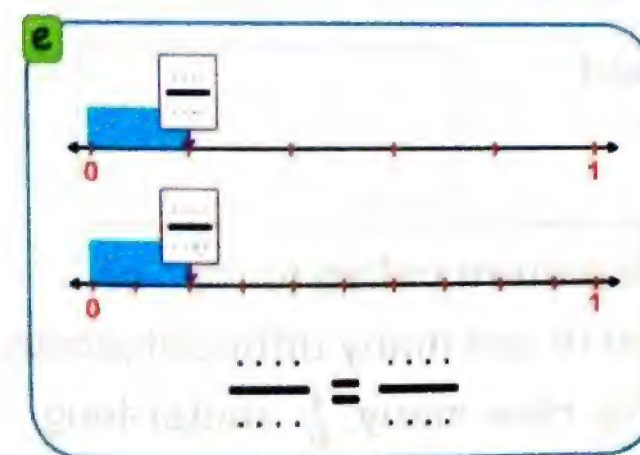
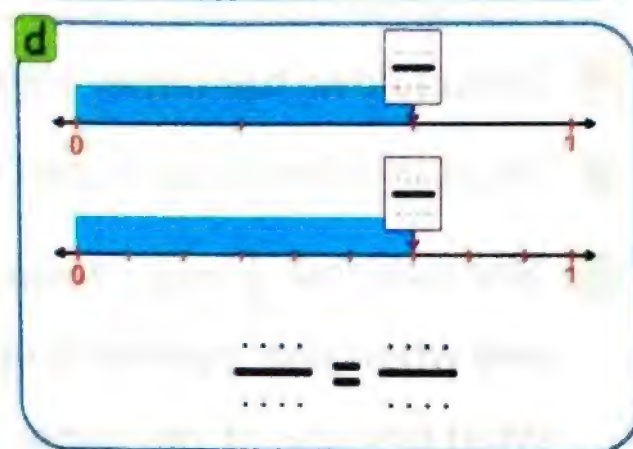
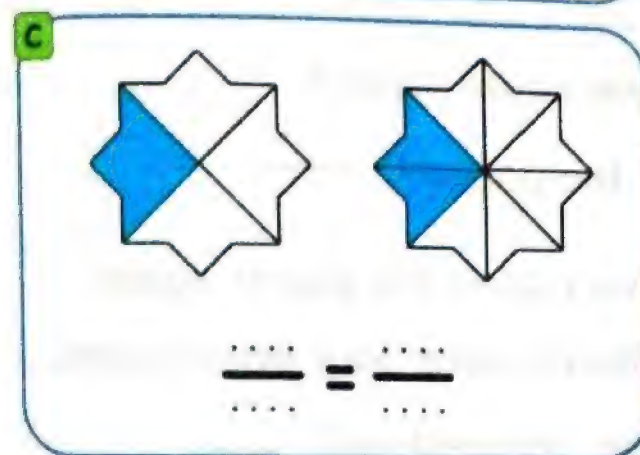
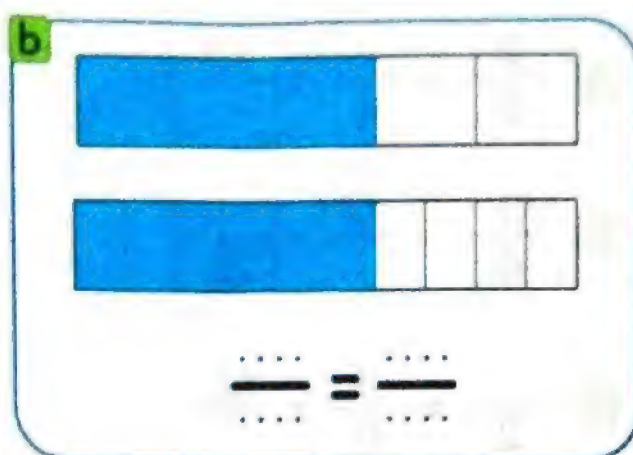
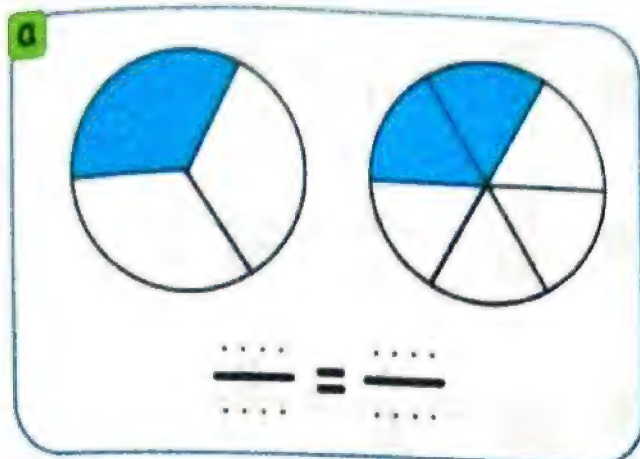
$$\frac{4}{8} = \frac{1}{2}$$

$$\frac{8}{16} = \frac{4}{8} = \frac{2}{4}$$

$$\frac{6}{12} = \frac{3}{6} = \frac{2}{4}$$



**1** Complete. ( Use the model or number line shown )



**2** Complete the following :

**a**  $\frac{1}{4} = \frac{3}{\dots}$

**d**  $\frac{12}{18} = \frac{2}{\dots}$

**b**  $\frac{2}{\dots} = \frac{4}{6}$

**e**  $\frac{\dots}{16} = \frac{1}{8}$

**c**  $\frac{3}{8} = \frac{\dots}{16}$

**f**  $\frac{8}{12} = \frac{\dots}{3}$

**3** Complete the following :

**a**  $\frac{2}{3} = \frac{\dots}{6} = \frac{10}{\dots}$

**d**  $\frac{18}{27} = \frac{\dots}{9} = \frac{2}{\dots}$

**b**  $\frac{3}{4} = \frac{12}{\dots} = \frac{\dots}{20}$

**e**  $\frac{15}{30} = \frac{3}{\dots} = \frac{\dots}{10}$

**c**  $\frac{\dots}{2} = \frac{3}{6} = \frac{12}{\dots}$

**f**  $\frac{\dots}{24} = \frac{4}{6} = \frac{2}{\dots}$

**4** Doha folded her paper into two equal pieces.

**a** What fraction is each part of the paper?  $\frac{\dots}{\dots}$

**b** She colored  $\frac{1}{2}$  red. Then, she folded the paper again, and when she opened it up, there were four equal parts.

What fraction of the paper was colored red?  $\frac{\dots}{\dots}$

**c** Draw what Doha's paper looked like after the second fold:



**5** Laila was making a quilt. The pattern called for  $\frac{2}{3}$  of a meter of fabric. She wanted to use many different pieces that were each  $\frac{1}{6}$  meter long. How many  $\frac{1}{6}$  meter-long pieces of fabric would she need?

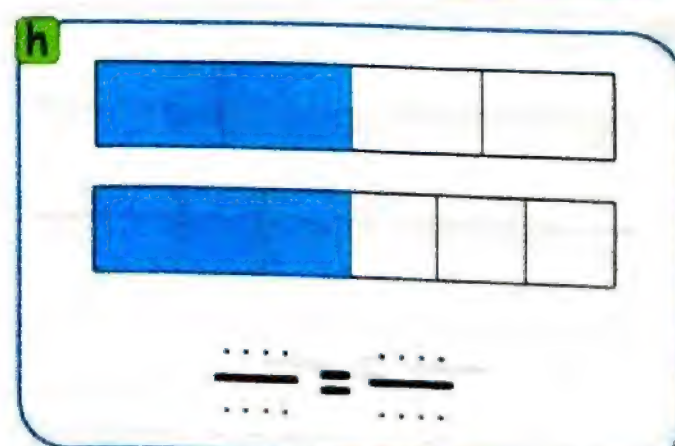
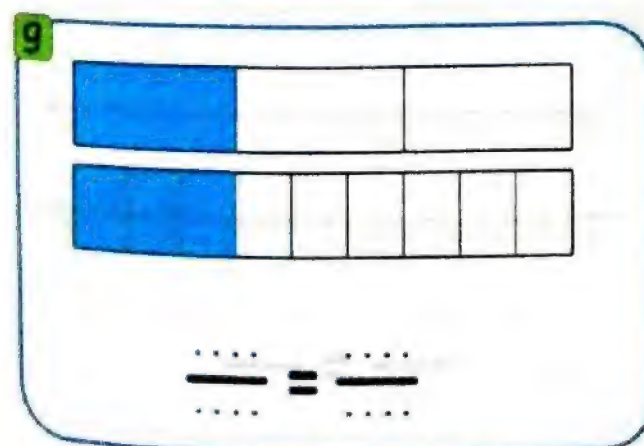
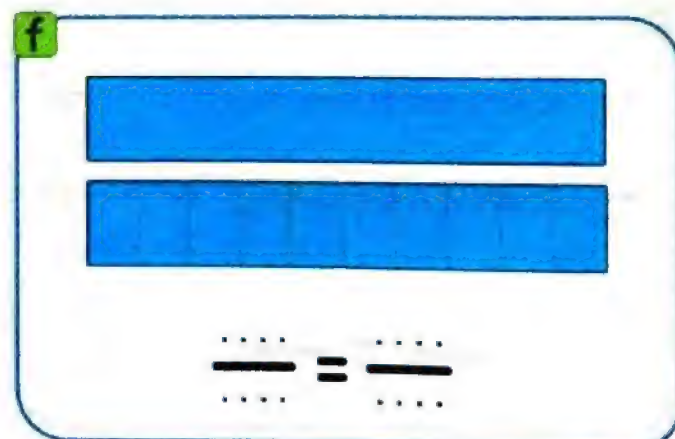
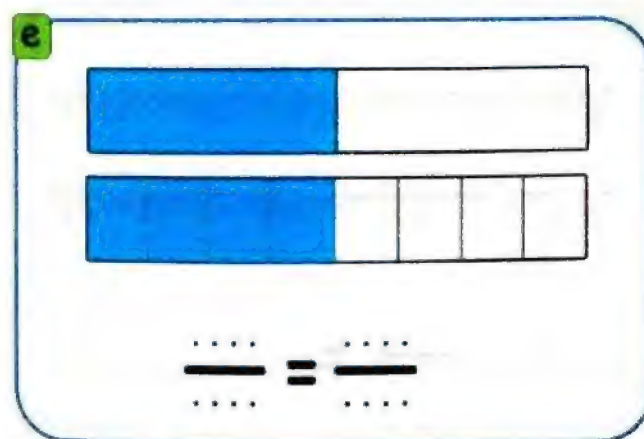
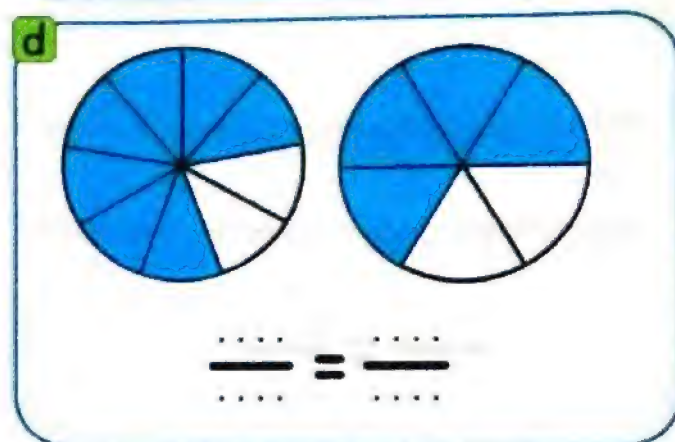
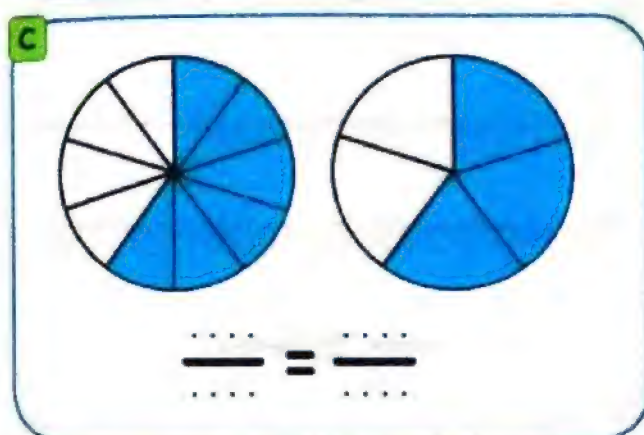
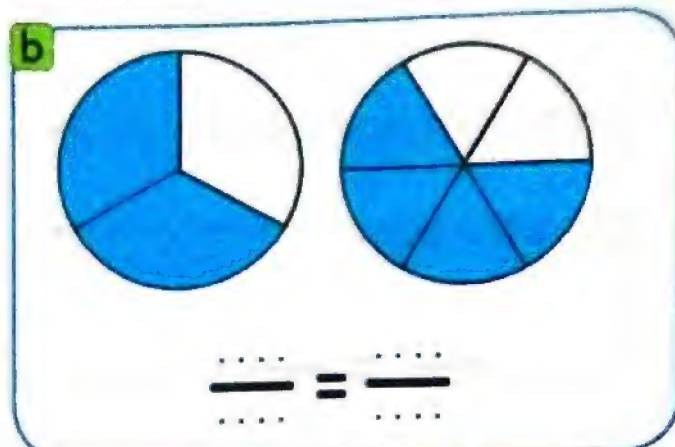
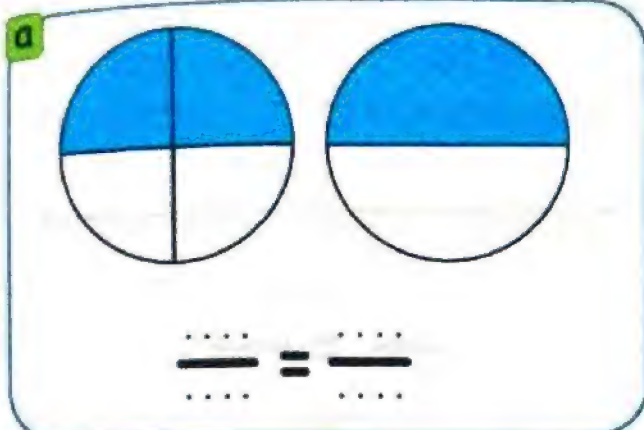
Show your thinking. You can use your fraction model

$\frac{2}{3} = \frac{\dots}{6}$





1 Complete. ( Using the models shown )



2 Complete. ( Using the number lines shown )

a



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

b



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

c



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

d



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

e



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

f



$$\frac{\dots}{\dots} = \dots$$

g



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$

h



$$\frac{\dots}{\dots} = \frac{\dots}{\dots}$$



**3** Use your fraction models to find:

(Draw your work, shade each fraction, and name each fraction.)

**a** Two fractions that are equal to  $\frac{1}{2}$

$$\frac{1}{2}$$

--	--

--

--

$$\frac{1}{2} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

**b** Two fractions that are equal to  $\frac{2}{3}$

$$\frac{2}{3}$$

--	--	--

--

--

$$\frac{2}{3} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

**c** Two fractions that are equal to  $\frac{3}{4}$

$$\frac{3}{4}$$

--	--	--	--

--

--

$$\frac{3}{4} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

**4** Complete the following :

a  $\frac{1}{2} = \frac{5}{\dots}$

b  $\frac{3}{4} = \frac{\dots}{16}$

c  $\frac{\dots}{4} = \frac{18}{24}$

d  $\frac{2}{\dots} = \frac{10}{15}$

e  $\frac{2}{3} = \frac{6}{\dots}$

f  $\frac{\dots}{8} = \frac{20}{32}$

g  $\frac{6}{8} = \frac{3}{\dots}$

h  $\frac{12}{18} = \frac{\dots}{3}$

i  $\frac{\dots}{36} = \frac{6}{9}$

j  $\frac{12}{\dots} = \frac{3}{5}$

k  $\frac{20}{25} = \frac{4}{\dots}$

l  $\frac{\dots}{18} = \frac{7}{9}$

**5** Complete the following :

a  $\frac{1}{2} = \frac{\dots}{4} = \frac{4}{\dots}$

b  $\frac{2}{5} = \frac{6}{\dots} = \frac{\dots}{20}$

c  $\frac{3}{\dots} = \frac{9}{6} = \frac{\dots}{12}$

d  $\frac{\dots}{3} = \frac{4}{6} = \frac{16}{\dots}$

e  $\frac{\dots}{7} = \frac{8}{\dots} = \frac{40}{70}$

f  $\frac{5}{\dots} = \frac{\dots}{42} = \frac{35}{49}$

g  $\frac{15}{30} = \frac{\dots}{10} = \frac{3}{\dots}$

h  $\frac{16}{24} = \frac{4}{\dots} = \frac{\dots}{3}$

i  $\frac{18}{\dots} = \frac{9}{12} = \frac{\dots}{4}$

j  $\frac{\dots}{2} = \frac{10}{20} = \frac{5}{\dots}$

k  $\frac{\dots}{40} = \frac{8}{\dots} = \frac{2}{5}$

l  $\frac{15}{\dots} = \frac{\dots}{6} = \frac{1}{2}$



**6** Read the following word problems carefully. Then complete :  
(use the provided models to show your answer)

**a** Mohamed bought a bar of chocolate with 8 equal parts.  
He ate  $\frac{1}{4}$  of it during break.

① The number of parts Mohamed ate .....

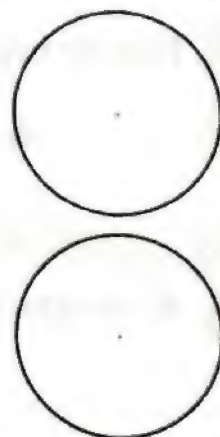
② The fraction that represents  
the parts that Mohamed ate .....

③ Equivalent fractions are ..... = .....

**b** The mother made a plate of dessert and divided it into  
6 equal parts. The family ate  $\frac{1}{3}$  of the dessert after lunch.

① The number of parts the family ate .....

② The fraction that represents  
the number of parts the family ate .....



③ Equivalent fractions are ..... = .....

**c** Mayar divided a strip of cloth into ten equal parts and used  
 $\frac{1}{2}$  the tape for a headband.

① The number of parts Mayar used .....

② The fraction that represents  
the number of parts  
Mayar used .....



③ Equivalent fractions are ..... = .....



**First** Choose the correct answer

- a The place value of the digit 9 in the number 78 923 is .....  
( Tens or Hundreds or Thousands )
- b  $6 \times 3 = \dots\dots\dots$  (  $2 \times 3 \times 3$  or  $3 \times 3 \times 3$  or  $9 \times 3$  )
- c  $7 \times 12 = \dots\dots\dots$  (  $7 \times 10 \times 2$  or  $7 \times 6 \times 6$  or  $7 \times 3 \times 4$  )
- d  $\dots\dots - \frac{3}{6} = \frac{2}{6}$  (  $\frac{5}{12}$  or  $\frac{1}{6}$  or  $\frac{5}{6}$  )
- e Three fifths = ..... (  $\frac{3}{8}$  or  $\frac{3}{5}$  or  $\frac{5}{3}$  )

**Second** Complete the following

- a  $\frac{1}{4} = \frac{\dots\dots}{8}$
- b  $\frac{\dots\dots}{36} = \frac{6}{9} = \frac{\dots\dots}{3}$
- c 12 thousands , 45 hundreds = .....
- d The number of Sevenths in the whole one = .....
- e  $\dots\dots \div 6 = 9$

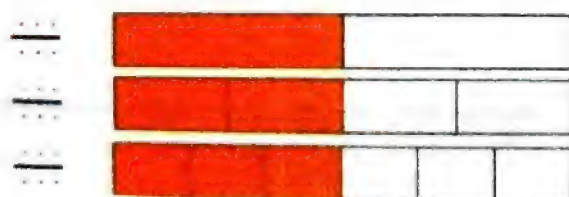
**Third** Answer the following

- a Arrange the following fractions in an ascending order :

$$\frac{4}{5} , \frac{4}{9} , 1 , \frac{4}{7}$$

..... , ..... , ..... , .....

- b Complete ( Using the model )



$$\frac{\dots\dots}{\dots\dots} = \frac{\dots\dots}{\dots\dots} = \frac{\dots\dots}{\dots\dots}$$

- c Write the time :

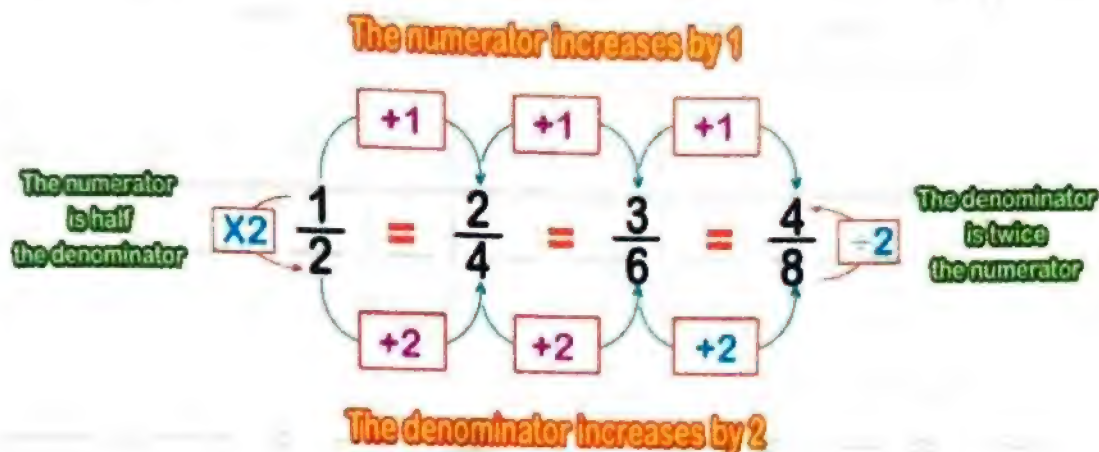
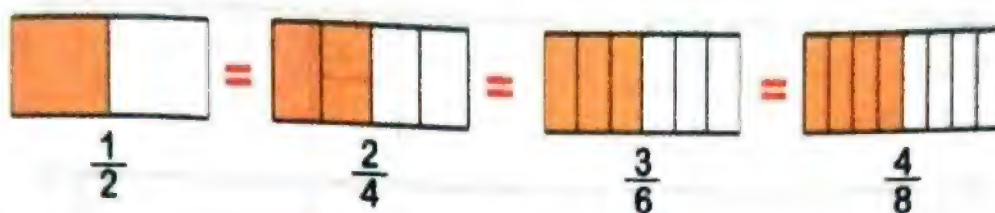




# LESSON

## 2

### Equivalent fractions ( Patterns )



1 Complete the following fraction patterns. (Describe the pattern) :

a  $\frac{1}{2} = \frac{\dots}{4} = \frac{3}{\dots} = \frac{\dots}{8}$

Description of pattern

The numerator : increase by .....

The denominator : increase by .....

b  $\frac{1}{3} = \frac{\dots}{6} = \frac{3}{\dots} = \frac{4}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

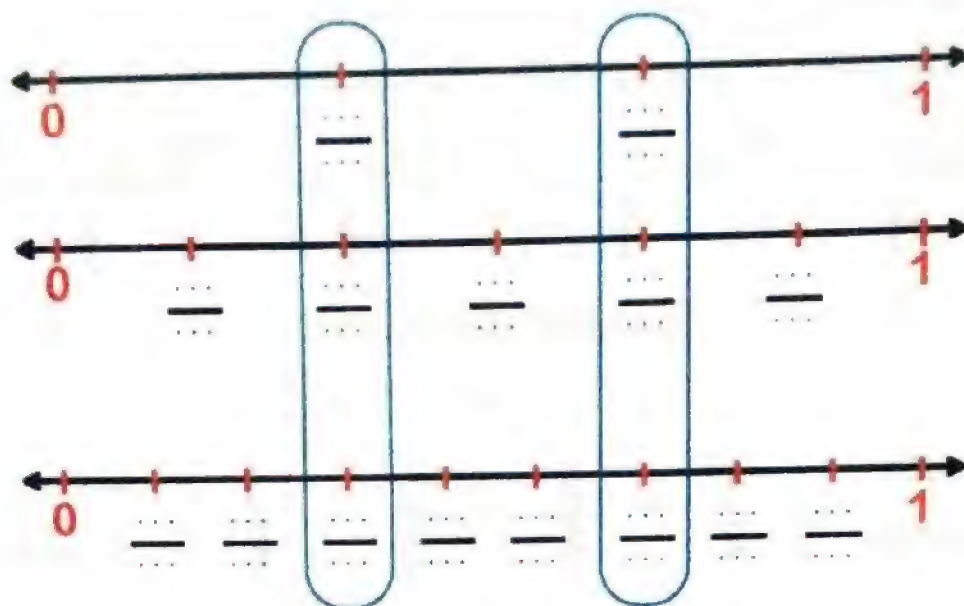
c  $\frac{2}{5} = \frac{4}{\dots} = \frac{\dots}{15} = \frac{8}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

2 Use the number lines shown, then write equivalent fractions



a  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

b  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

3 Habiba and Hatem both had 1 liter of juice. Habiba said that her family drank  $\frac{2}{4}$  of the liter. Hatem said his family drank the same amount. If Hatem measured his amount in eighths, how much juice did his family drink?

Draw a number line, model, or a picture of your fraction strips to help solve the problem and explain your thinking.

.....

.....

.....



**1** Complete the following fraction patterns. (Describe the pattern) :

**a**  $\frac{1}{4} = \frac{\dots}{8} = \frac{3}{\dots} = \frac{\dots}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

**b**  $\frac{2}{3} = \frac{\dots}{6} = \frac{8}{\dots} = \frac{\dots}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

**c**  $\frac{1}{5} = \frac{2}{\dots} = \frac{\dots}{15} = \frac{\dots}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

**d**  $\frac{1}{2} = \frac{\dots}{4} = \frac{3}{\dots} = \frac{\dots}{8}$

Description of pattern

The numerator : .....

The denominator : .....

**e**  $\frac{2}{7} = \frac{4}{\dots} = \frac{\dots}{21} = \frac{\dots}{\dots}$

Description of pattern

The numerator : .....

The denominator : .....

**f**  $\frac{2}{5} = \frac{4}{\dots} = \frac{\dots}{15} = \frac{\dots}{\dots}$

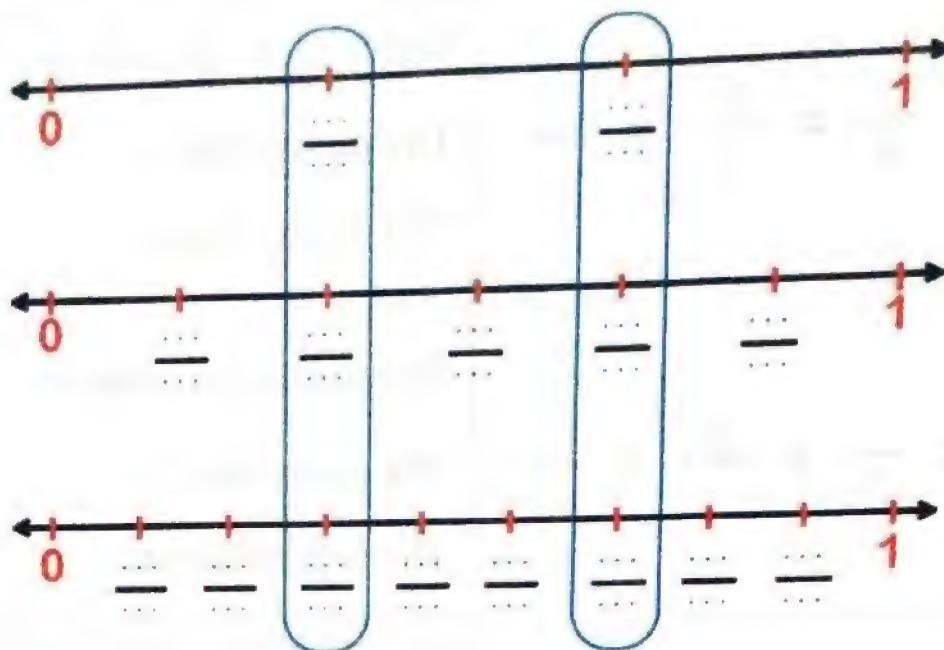
Description of pattern

The numerator : .....

The denominator : .....

2 Use the number lines shown, then write equivalent fractions

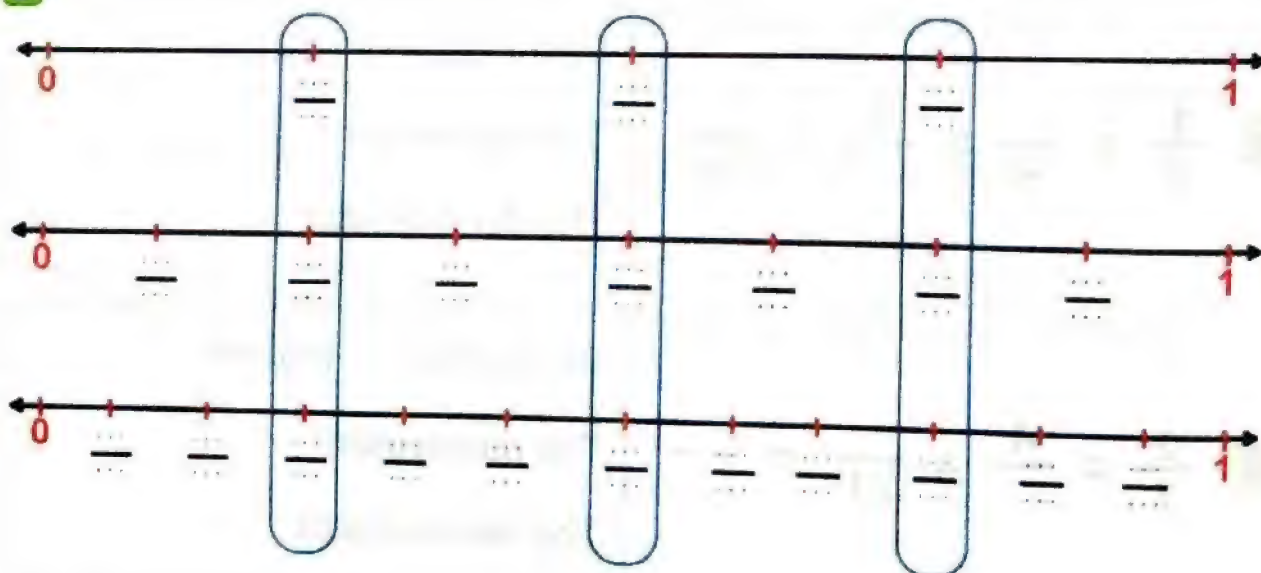
a



①  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

②  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

b



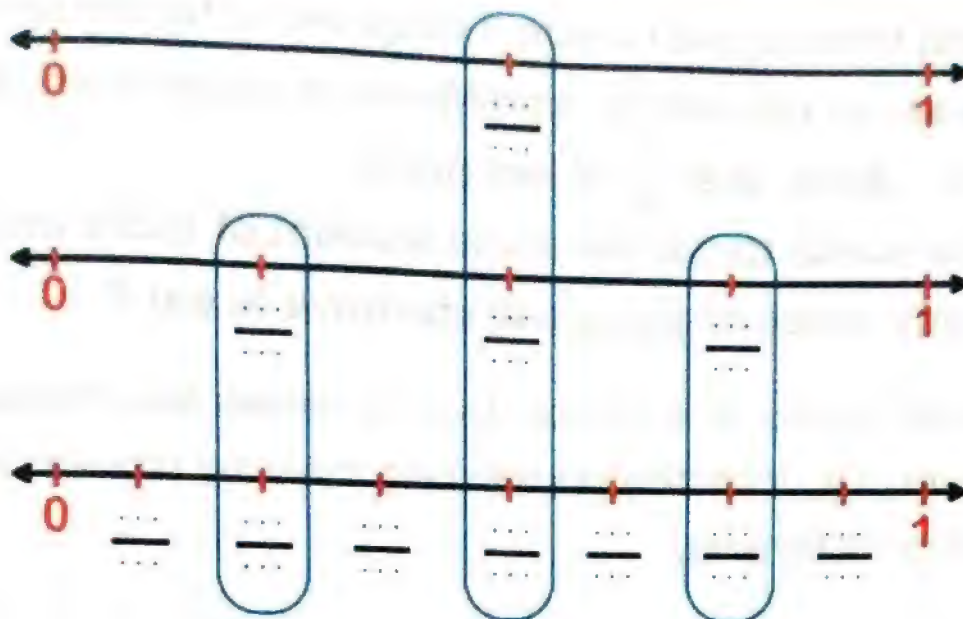
①  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

②  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

③  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$



c

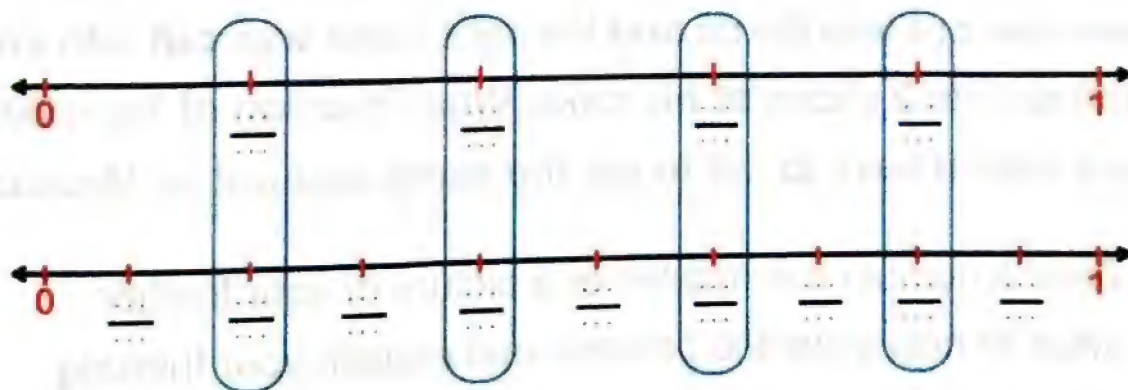


①  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

②  $\frac{\dots}{\dots} = \frac{\dots}{\dots} = \frac{\dots}{\dots}$

③  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

d



①  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

②  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

③  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

④  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

- 3** Jana and Menna each made a large pizza for dinner. Jana's pizza was cut into sixths, and Menna's pizza was cut into twelfths. Jana ate  $\frac{2}{6}$  of her pizza. If Menna wants to eat the same amount of pizza as Jana, How many slices of pizza will she have to eat?

Write the answer as a fraction. Draw a number line, model, or a picture of your fraction strips to help solve the problem and explain your thinking.

.....

.....

.....

- 4** Moutaza and Kamal were eating same-sized cakes. Moutaza's cake was cut into thirds and Kamal's cake was cut into sixths. Moutaza ate 2 slices of his cake. What fraction of his cake does Kamal have to eat to eat the same amount as Moutaza?

Draw a number line, model, or a picture of your fraction strips to help solve the problem and explain your thinking.

.....

.....

.....



## First Choose the correct answer

- a Two eighths equivalent to ..... (  $\frac{1}{8}$  or  $\frac{1}{4}$  or  $\frac{1}{2}$  )
- b The number that comes right after 10 999 is .....  
( 11 000 or 12 000 or 10 998 )
- c  $12 + 15 =$  ..... (  $2 \times 3 \times 4$  or  $3 \times (4 + 5)$  or  $9 \times 4 \times 5$  )
- d  $42 \div \dots = 6$  ( 6 or 7 or 8 )
- e  $\dots - \frac{2}{7} = \frac{3}{7}$  (  $\frac{5}{14}$  or  $\frac{1}{7}$  or  $\frac{5}{7}$  )

## Second Complete the following

- a  $4 + 4 + 4 + 4 + 4 = \dots \times \dots$
- b  $5 \times (3 \times \dots) = (\dots \times \dots) \times 7$
- c  $\frac{2}{5} + \frac{3}{5} = \dots$
- d  $\frac{2}{\dots} = \frac{4}{6} = \frac{\dots}{9}$
- e  $\frac{1}{3} = \frac{2}{6} = \frac{3}{\dots} = \dots$

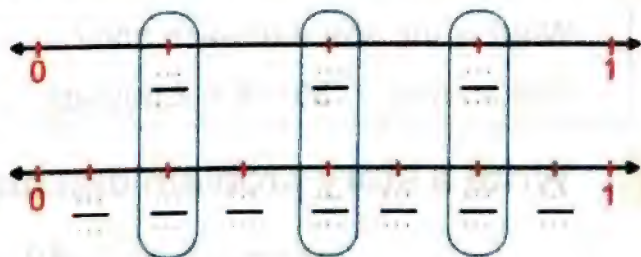
## Third Answer the following

- a Use the number lines shown, then write equivalent fractions

①  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

②  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$

③  $\frac{\dots}{\dots} = \frac{\dots}{\dots}$



- b Mohamed bought a bar of chocolate with 8 equal parts.  
He ate 4 parts. of it during break.  
The fraction that represents the parts that  
Mohamed ate .....

LESSON

3

# Word Problems on Division

- 1 Omar has 18 pieces of candy. He wants to give the same amount to each of his 6 friends.

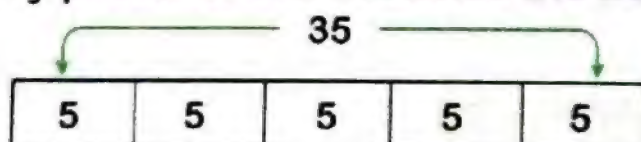
How many pieces would each friend get?

- 2 You have 20 figs to divide evenly between 4 plates. How many figs should you put on each plate?

- 3 Diaa has 36 toys he would like to split evenly among 6 friends. How many toys should each friend receive?

Write a story problem that matches the bar model below.

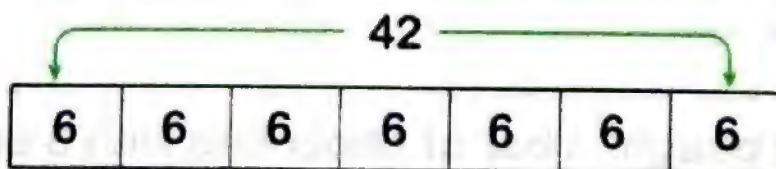
Example



Ahmed had 35 pounds , He shared this sum with his four brothers  
What is the share of each one?

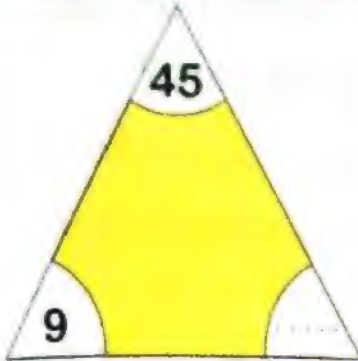
The answer :  $35 \div 5 = 7$  pounds

- 4 Write a story problem that matches the bar model below.







- 5 For each fact family below, find the missing factor and write four different equations to show the relationships among the family members.



$\times =$   
 $\times =$   
 $\div =$   
 $\div =$



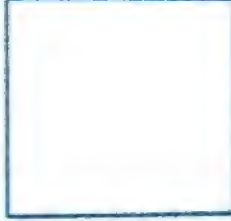
$\times =$   
 $\times =$   
 $\div =$   
 $\div =$



$\times =$   
 $\times =$   
 $\div =$   
 $\div =$

- 6 Use the opposite figure for each question to complete :

a




4 cm

4 cm

The area = .....

The perimeter = .....

b



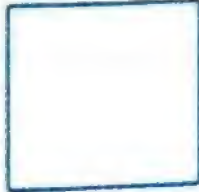
3 cm

7 cm

The area = .....

The perimeter = .....

c




..... cm

..... cm

The area = .....

The perimeter = 20 cm

d



2 cm

..... cm

The area = 16 sq cm

The perimeter = .....

**1** Answer the following word problems

- a** There are 28 crayons in the classroom that need to be placed in 4 cups. Each cup must have the same number of crayons. How many crayons will be in each cup?

.....

.....

- b** Diaa has 36 toys he would like to split evenly among 6 friends. How many toys should each friend receive?

.....

.....

- c** You have 18 dates. Each person will get 2 dates. How many people can you feed?

.....

.....

- d** The class has 28 students. You can fit 4 students on a swing set. How many swing sets are needed for the whole class to swing?

.....

.....

- e** Diaa placed 40 marbles in rows of 5. How many rows did he make?

.....

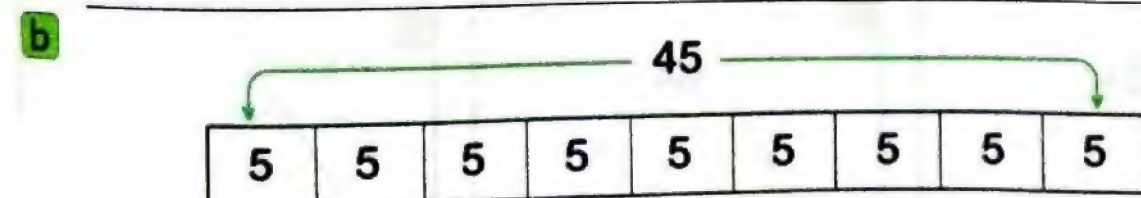
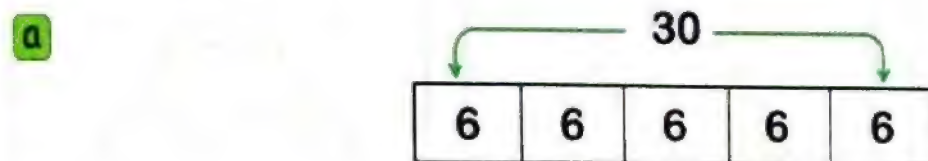
.....



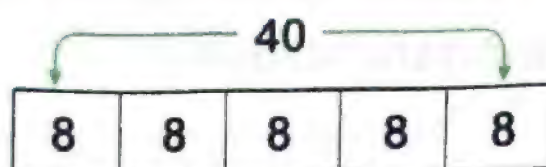
- f** Omnia studied 14 hours. If she studied for 2 hours each day, How many days did she study?

- g** Seif is sorting crayons into groups of 9. How many groups will he make if he has 81 crayons?

- 2** Write a story problem that matches each of the following bar models .



**c**



**3** For each fact family below, find the missing factor and write four different equations to show the relationships among the family members.

**a**

15

5

$\times =$

$\times =$

$\div =$

$\div =$

**b**

28

7

$\times =$

$\times =$

$\div =$

$\div =$

**c**

5

8

$\times =$

$\times =$

$\div =$

$\div =$

**d**

54

6

$\times =$

$\times =$

$\div =$

$\div =$

**e**

64

8

$\times =$

$\div =$

**f**

6

7

$\times =$

$\times =$

$\div =$

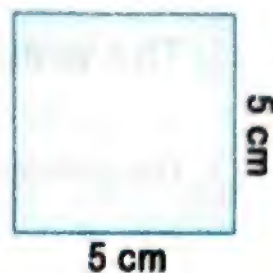
$\div =$



**4** Use the opposite figure for each question to complete :

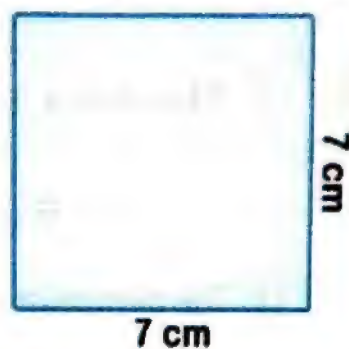
**a** ① The area = .....  
= ..... sq cm

② The perimeter = .....  
= ..... cm



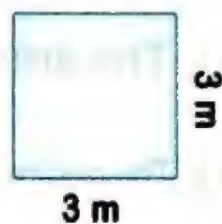
**b** ① The area = .....  
= ..... sq cm

② The perimeter = .....  
= ..... cm



**c** ① The area = .....  
= ..... sq m

② The perimeter = .....  
= ..... m



**d** ① The area = .....  
= ..... sq cm

② The perimeter = .....  
= ..... cm



**e** ① The area = .....  
= ..... sq m

② The perimeter = .....  
= ..... m



**f** ① The area = .....  
= ..... sq cm

② The perimeter = .....  
= ..... cm

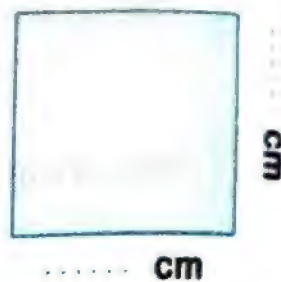


**5** Use the opposite figure for each question to complete :

**a** ① The area = 9 sq cm

② The perimeter = .....

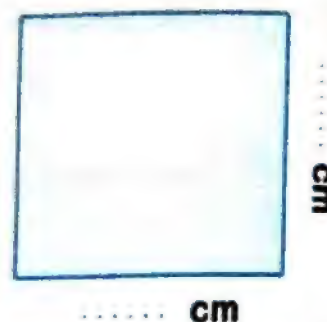
= ..... cm



**b** ① The area = .....

= ..... sq cm

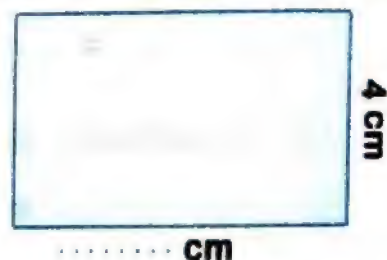
② The perimeter = 24 cm



**c** ① The area = 32 sq cm

② The perimeter = .....

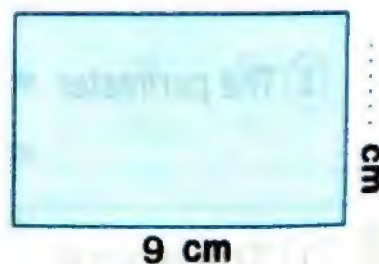
= ..... cm



**d** ① The area = 18 sq cm

② The perimeter = .....

= ..... cm



**e** ① The area = .....

= ..... sq m

② The perimeter = 24 m





## First Choose the correct answer

- a Nine hundred fifty thousand and ninety five ( In digits ) :  
( 95 095 or 905 095 or 950 095 )
- b  $9 + 9 =$  :  
(  $6 \times 3$  or  $9 \times 9$  or  $9 + 2$  )
- c  $\dots + \frac{1}{5} = \frac{2}{5}$  :  
(  $\frac{1}{5}$  or  $\frac{2}{5}$  or  $\frac{3}{5}$  )
- d Two fifths = :  
(  $\frac{2}{6}$  or  $\frac{5}{2}$  or  $\frac{2}{5}$  )
- e  $(6 \times 5) + (6 \times 5) =$  :  
(  $6 \times 25$  or  $6 \times 10$  or  $12 \times 10$  )

## Second Complete the following

- a  $\frac{3}{4} = \frac{6}{\dots}$
- b  $\frac{7}{8} - \frac{3}{8} =$
- c The perimeter of the square =  $\dots \times \dots$
- d  $6 \times 5 = \dots + \dots + \dots$
- e  $1 = \frac{7}{\dots}$

## Third Answer the following

- a From the fact family complete :

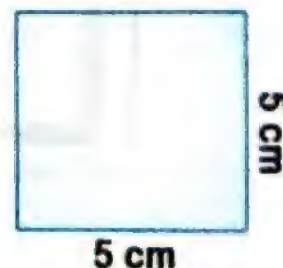
①  $\times =$       ③  $\div =$

②  $\times =$       ④  $\div =$



- b Use the opposite figure for each question to complete :

- ① The area = .....  
= ..... sq cm
- ② The perimeter = .....  
= ..... cm

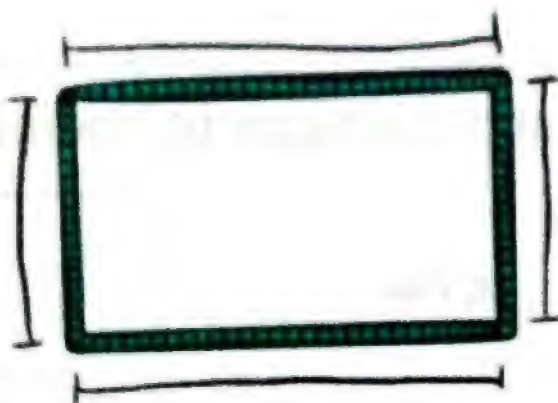


- c Diaa placed 40 marbles in rows of 5.  
How many rows did he make?

# CHAPTER

## Five

Perimeter:



Area:





LESSON 1

# Applications on Multiplication and Division

1 Find the result of the following

$2 \times 2 = \dots\dots\dots$

$2 \times 3 = \dots\dots\dots$

$2 \times 4 = \dots\dots\dots$

$3 \times 3 = \dots\dots\dots$

$2 \times 5 = \dots\dots\dots$

$3 \times 4 = \dots\dots\dots$

$2 \times 6 = \dots\dots\dots$

$2 \times 7 = \dots\dots\dots$

$3 \times 5 = \dots\dots\dots$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$28 \div 7 = \dots\dots\dots$

$30 \div 5 = \dots\dots\dots$

$32 \div 8 = \dots\dots\dots$

$35 \div 5 = \dots\dots\dots$

$36 \div 9 = \dots\dots\dots$

$36 \div 6 = \dots\dots\dots$

$40 \div 8 = \dots\dots\dots$

$42 \div 6 = \dots\dots\dots$

$45 \div 5 = \dots\dots\dots$

$$\begin{array}{r} \dots\dots\dots \\ 6 \overline{) 48} \end{array}$$

$$\begin{array}{r} \dots\dots\dots \\ 7 \overline{) 49} \end{array}$$

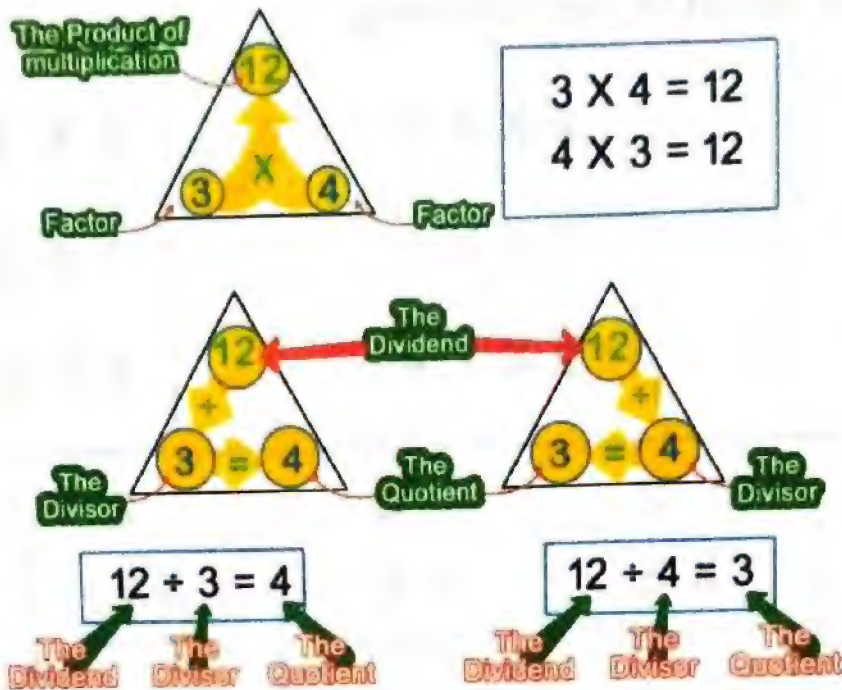
$$\begin{array}{r} \dots\dots\dots \\ 9 \overline{) 63} \end{array}$$

$$\begin{array}{r} \dots\dots\dots \\ 8 \overline{) 56} \end{array}$$

$$\begin{array}{r} \dots\dots\dots \\ 8 \overline{) 64} \end{array}$$

$$\begin{array}{r} \dots\dots\dots \\ 8 \overline{) 72} \end{array}$$

We can write 2 multiplication and 2 division problems using the numbers 3 and 4 .



2 Use every two numbers below to complete fact family below.

a

5 and 9

①  $\times$  ... =      ②  $\div$  =

③  $\times$  =      ④  $\div$  =

a

7 and 4

①  $\times$  =      ②  $\div$  =

③  $\times$  =      ④  $\div$  =

Write a multiplication story problem that could be represented by the equation  $4 \times 5 = \dots$

Example

Ehab has 5 bags of 4 pens each.  
How many pens does Ihab have?

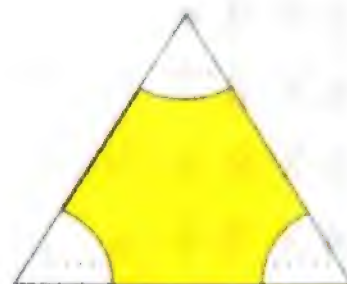


**3** Read each story problem below.  
write an equation with an unknown to represent what is  
happening in the story. Then, solve the story problem.  
You may use a fact family triangle to help you with your work.

- a** You have 20 crayons. You want to put the crayons into boxes.  
 Each box can hold 5 crayons. How many boxes will I need?

Equation with unknown : .....  $\times 5 = 20$

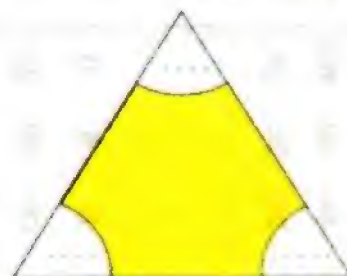
Answer : .....



- b** There are 9 elephants at the zoo. Each elephant eats 2 bales  
 of hay in a day. How many bales of hay does the zookeeper  
 need to feed all 9 elephants for one day?

Equation with unknown : .....

Answer : .....



- c** Adam baked 24 cookies. He gives a bag to 8 of his friends.  
 How many cookies are in each bag?

Equation with unknown : .....

Answer : .....



**1 Complete:**

$2 \times 2 = \dots\dots\dots$

$3 \times 3 = \dots\dots\dots$

$2 \times 6 = \dots\dots\dots$

$4 \times 4 = \dots\dots\dots$

$2 \times 9 = \dots\dots\dots$

$4 \times 6 = \dots\dots\dots$

$3 \times 9 = \dots\dots\dots$

$4 \times 8 = \dots\dots\dots$

$6 \times 6 = \dots\dots\dots$

$5 \times 9 = \dots\dots\dots$

$6 \times 9 = \dots\dots\dots$

$7 \times 9 = \dots\dots\dots$

$2 \times 3 = \dots\dots\dots$

$2 \times 5 = \dots\dots\dots$

$2 \times 7 = \dots\dots\dots$

$2 \times 8 = \dots\dots\dots$

$4 \times 5 = \dots\dots\dots$

$3 \times 8 = \dots\dots\dots$

$4 \times 7 = \dots\dots\dots$

$5 \times 7 = \dots\dots\dots$

$5 \times 8 = \dots\dots\dots$

$6 \times 8 = \dots\dots\dots$

$7 \times 8 = \dots\dots\dots$

$8 \times 9 = \dots\dots\dots$

$2 \times 4 = \dots\dots\dots$

$3 \times 4 = \dots\dots\dots$

$3 \times 5 = \dots\dots\dots$

$3 \times 6 = \dots\dots\dots$

$3 \times 7 = \dots\dots\dots$

$5 \times 5 = \dots\dots\dots$

$5 \times 6 = \dots\dots\dots$

$4 \times 9 = \dots\dots\dots$

$6 \times 7 = \dots\dots\dots$

$7 \times 7 = \dots\dots\dots$

$8 \times 8 = \dots\dots\dots$

$9 \times 9 = \dots\dots\dots$

$2 \times \dots\dots\dots = 4$

$3 \times \dots\dots\dots = 6$

$4 \times \dots\dots\dots = 8$

$3 \times \dots\dots\dots = 9$

$5 \times \dots\dots\dots = 10$

$6 \times \dots\dots\dots = 12$

$4 \times \dots\dots\dots = 12$

$7 \times \dots\dots\dots = 14$

$5 \times \dots\dots\dots = 15$

$4 \times \dots\dots\dots = 16$

$8 \times \dots\dots\dots = 16$

$9 \times \dots\dots\dots = 18$

$6 \times \dots\dots\dots = 18$

$5 \times \dots\dots\dots = 20$

$7 \times \dots\dots\dots = 21$

$8 \times \dots\dots\dots = 24$

$6 \times \dots\dots\dots = 24$

$5 \times \dots\dots\dots = 25$

$9 \times \dots\dots\dots = 27$

$7 \times \dots\dots\dots = 28$

$6 \times \dots\dots\dots = 30$

$8 \times \dots\dots\dots = 32$

$7 \times \dots\dots\dots = 35$

$6 \times \dots\dots\dots = 36$

$9 \times \dots\dots\dots = 36$

$8 \times \dots\dots\dots = 40$

$7 \times \dots\dots\dots = 42$

$9 \times \dots\dots\dots = 45$

$8 \times \dots\dots\dots = 48$

$7 \times \dots\dots\dots = 49$

$9 \times \dots\dots\dots = 54$

$8 \times \dots\dots\dots = 56$

$9 \times \dots\dots\dots = 63$

$8 \times \dots\dots\dots = 64$

$9 \times \dots\dots\dots = 72$

$9 \times \dots\dots\dots = 81$



2 Choose the correct answer :

- a  $8 + 8 + 8 =$  .....  
 (  $8 \times 3$  or  $8 + 3$  or  $8 \times 8$  )
- b  $8 \times 2 =$  .....  
 (  $8 + 2$  or  $8 + 8$  or  $8 \times 8$  )
- c  $6 + 6 =$  .....  
 (  $6 \times 2$  or  $6 \times 6$  or  $6 + 2$  )
- d  $2 \times 5$    $3 \times 3$   
 (  $<$  or  $=$  or  $>$  )
- e  $8 + 8 + 8$    $6 \times 4$   
 (  $<$  or  $=$  or  $>$  )
- f  $5 \times 6 = 3 \times$  .....  
 (  $5$  or  $10$  or  $6$  )
- g  $6 + 6 + 6 + 6 = 3 \times$  .....  
 (  $8$  or  $6$  or  $4$  )
- h  $7 \times 4 \times 10 =$  .....  $\times 10$   
 (  $280$  or  $4$  or  $28$  )
- i  $28 \times 10 = 4 \times$  .....  $\times 10$   
 (  $7$  or  $280$  or  $40$  )
- j  $9 \times$  .....  $= 6 \times 9$   
 (  $6$  or  $9$  or  $54$  )

3 Complete the following :

- a  $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 =$  .....  $\times$  .....  $=$  .....
- b  $5 \times 8 =$  .....  $+$  .....  $+$  .....  $+$  .....  $+$  .....  $=$  .....
- c  $4 + 4 + 4 + 4 = 2 \times$  .....  $=$  .....
- d  $5 \times 8 = 4 \times$  .....  $=$  .....
- e  $52 \times 10 =$  .....
- f  $32 \div$  .....  $= 8$
- g .....  $\div 8 = 4$
- h  $55 \times$  .....  $= 550$
- i  $8 \times 50 =$  .....  $\times$  .....  $\times$  .....  $=$  .....  $\times$  .....  $=$  .....

**4** Use every two numbers below to complete fact family below.

**a**

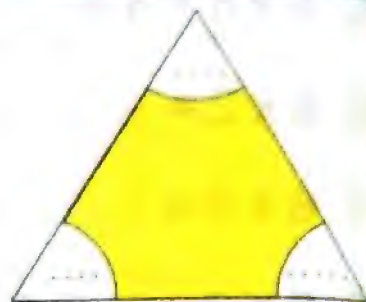
**5** and **7**

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$



**b**

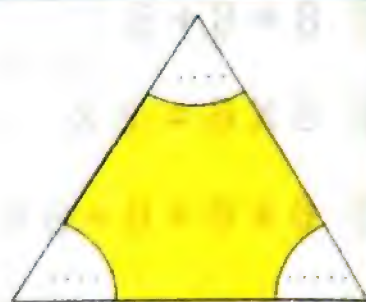
**8** and **3**

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$



**c**

**9** and **4**

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$



**d**

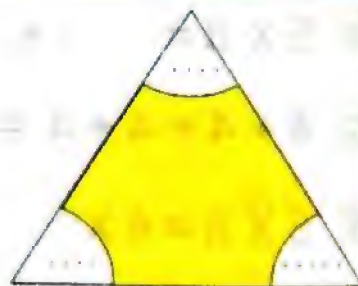
**6** and **2**

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$



**e**

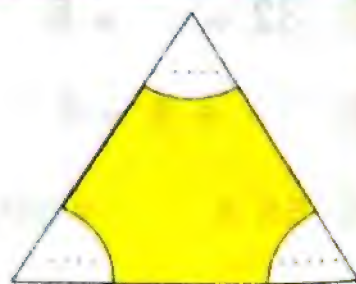
**7** and **8**

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$





**5** Read each story problem below.  
write an equation with an unknown to represent what is  
happening in the story. Then, solve the story problem.  
You may use a fact family triangle to help you with your work.

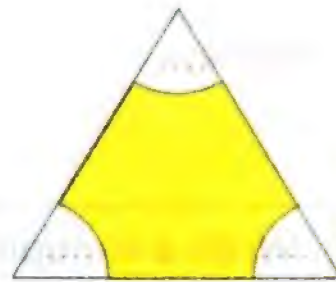
- a** The zookeeper has 81 fish. Each crocodile at the zoo gets 9 fish. If all the crocodiles get fed,  
 How many crocodiles are there at the zoo?

Equation with unknown :

.....

Answer : .....

.....



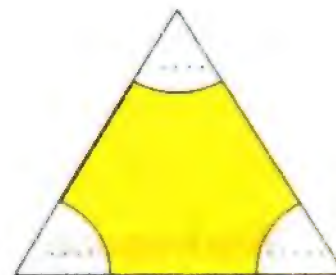
- b** Adam and his friends walked to the zoo. The tickets cost 3 LE each. If Adam and his friends spend 27 LE all together,  
 How many tickets did they buy?

Equation with unknown :

.....

Answer : .....

.....



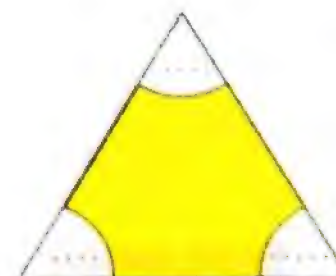
- c** At the hippo exhibit in the zoo, Adam and his friends count 16 hippo feet. If every hippo has 4 feet,  
 How many hippos are at the zoo?

Equation with unknown :

.....

Answer : .....

.....



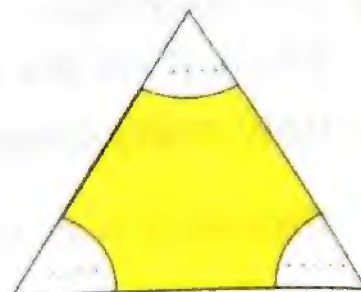
- d** The zookeeper is giving a talk at an auditorium about peacocks. Adam and his friends go to listen. The auditorium can hold 48 people. If there are 6 rows, how many chairs are in each row?

**Equation with unknown :**

.....

**Answer :** .....

.....



- 6** Write a multiplication story problem that could be represented by the equation shown.

**a**  $8 \times 5$

**Story problem:**

.....

.....

.....

.....

**Work space:**

.....

**b**  $3 \times 9$

**Story problem:**

.....

.....

.....

.....

**Work space:**

.....



Write a division story problem that could be represented by the equation shown.

a  $18 \div 9$

Story problem:

.....

.....

.....

.....

Work space:

.....

b  $24 \div 6$

Story problem:

.....

.....

.....

.....

Work space:

.....

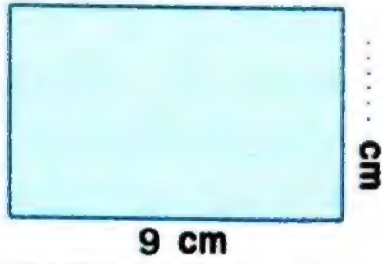
**First** Choose the correct answer

- a If  $4 \times 12 = 48$  the  $48 \div 4 = \dots\dots\dots$  ( 12 or 4 or 48 )  
 b The square has  $\dots\dots\dots$  sides ( 3 or 4 or 5 )  
 c 20 thousands =  $\dots\dots\dots$  hundreds ( 20 or 200 or 2000 )  
 d  $7 \times 15 = \dots\dots\dots$  (  $7 \times (10 \times 5)$  or  $7 + (10 + 5)$  or  $7 \times (10 + 5)$  )  
 e  $\frac{2}{6} \dots\dots \frac{4}{6}$  ( < or = or > )

**Second** Complete the following

- a  $(8 \times 4) \times 5 = 8 \times (\dots\dots \times \dots\dots) = 8 \times \dots\dots = \dots\dots$   
 b  $50 + 100\,000 + 5\,000 = \dots\dots\dots$   
 c If  $7 \times 5 = \dots\dots\dots$ , then  $\dots\dots \div 7 = 5$  and  $\dots\dots \div 5 = 7$   
 d  $\frac{3}{5} - \frac{2}{5} = \dots\dots\dots$  e  $\frac{2}{9} + \frac{3}{9} + \frac{3}{9} = \dots\dots\dots$

**Third** Answer the following

- a Find the result :  
 ①  $6 \times 15 = \dots\dots\dots$  ③  $72 \div 9 = \dots\dots\dots$   
 ②  $2 \times 4 \times 5 = \dots\dots\dots$  ④  $24 \div 4 = \dots\dots\dots$   
 b Use the opposite figur to complete :  
 The are = 18 sq cm  
 The perimeter =  $\dots\dots\dots$   
 $\dots\dots\dots$  cm  
  
 c An apple has an average mass of 70 grams, and an orange has an average mass of 130 grams. If Basma had 4 apples and 4 oranges, what is the mass of all the fruit?  
 $\dots\dots\dots$   
 $\dots\dots\dots$



# LESSON

## 2

# The Perimeter and The Area

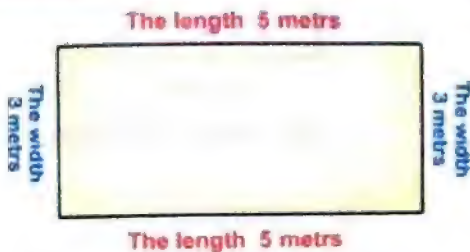
## Rectangle & Square

**Example**

A rectangular room, 5 meters long and 3 meters wide , Model it. Then find its perimeter and area

### The Perimeter

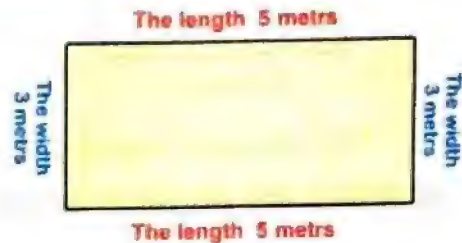
#### First solution method



The rectangle has 4 sides , each two opposite sides are equal in length . So,

$$\text{The perimeter} = 5 + 3 + 5 + 3 = 16 \text{ meters}$$

#### Second solution method

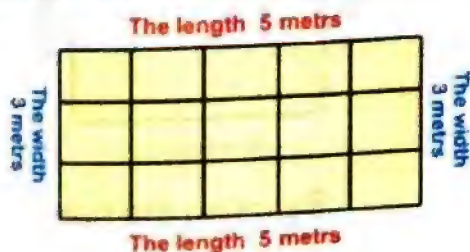


By using the rule

$$\begin{aligned} \text{The perimeter} &= (\text{Length} + \text{Width}) \times 2 \\ &= (5 + 3) \times 2 = 8 \times 2 \\ &= 16 \text{ meters} \end{aligned}$$

### The Area

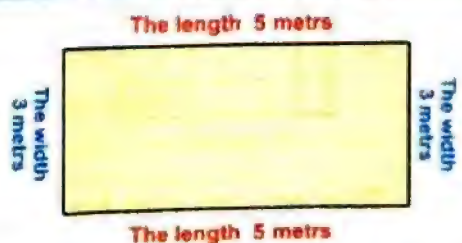
#### First solution method



The rectangle can be divided into units

$$\text{The area} = 15 \text{ Square meter}$$

#### Second solution method



By using the rule

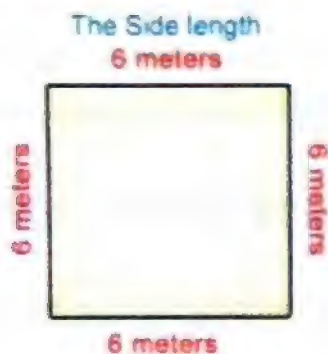
$$\begin{aligned} \text{The area} &= \text{Length} \times \text{Width} \\ &= 5 \times 3 \\ &= 15 \text{ Square meter} \end{aligned}$$

**Example**

A square-shaped room with a side length of 6 meters. Model it, then find its perimeter and area

## The Perimeter

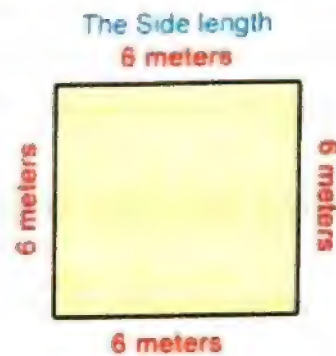
### First solution method



The square has 4 ,  
all sides are equal in length

$$\begin{aligned}\text{The perimeter} &= 6 + 6 + 6 + 6 \\ &= \mathbf{24} \text{ meters}\end{aligned}$$

### Second solution method

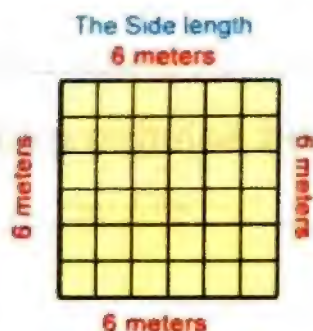


By using the rule

$$\begin{aligned}\text{The perimeter} &= \text{The side length} \times 4 \\ &= 6 \times 4 \\ &= \mathbf{24} \text{ meters}\end{aligned}$$

## The Area

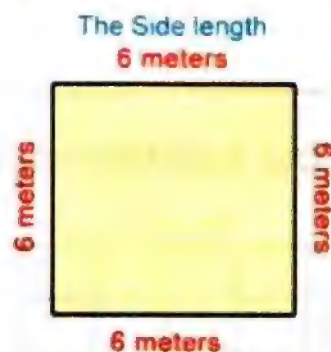
### First solution method



The square can be  
divided into equal square units

$$\text{The area} = \mathbf{36} \text{ Square meter}$$

### Second solution method



By using the rule

$$\begin{aligned}\text{The area} &= \text{The side length} \times \text{The side length} \\ &= 6 \times 6 \\ &= \mathbf{36} \text{ Square meters}\end{aligned}$$



# The relationship between Perimeter & Area

## The Rectangle

The Area

The length = The area ÷ the width

The Width = The area ÷ the Length

$(\text{Length} + \text{width}) \times 2$

The Perimeter

**Example**

A rectangular piece of land, its area 48 square meters and its width of 6 meters Find: The length and The perimeter.

The length = The area ÷ The width =  $48 \div 6 = 8$  meters

The perimeter =  $(\text{length} + \text{width}) \times 2 = (8 + 6) \times 2 = 14 \times 2 = 28$  meters

The Perimeter

The Length =  $(\text{The perimeter} \div 2) - \text{width}$

The Width =  $(\text{The perimeter} \div 2) - \text{Length}$

Length X width

The Area

**Example**

A rectangular piece of land, its Perimeter 30 meters and its length of 9 meters Find : The width and The area .

The width =  $(\text{The perimeter} \div 2) - \text{the length} = (30 \div 2) - 9 = 6$  meters

The area = length X width =  $9 \times 6 = 54$  Square meters

The Perimeter

The side length = The perimeter ÷ 4

The side length X The side length

The Area

**Example**

The perimeter of a square is 32 cm Find its area .

The side length = The perimeter ÷ 4 =  $32 \div 4 = 8$  meters

The area = The side length X The side length =  $8 \times 8 = 64$  square meters

## The Square

The Area

To find the side length , We are thinking of two numbers that are similar ,The product of both is the area

The Perimeter

**Example**

The area of a square is 36 square cm Find its perimeter

$36 = 6 \times 6$  so . The side length = 6

The perimeter = The side length X 4 =  $6 \times 4 = 24$  meters



**1** Completet the following table :

The side length	8 cm	..... cm	..... cm
The perimeter of the square	... X ... = ..... cm	20 cm	... X ... = ..... cm
The area of the square	... X ... = ..... square cm	... X ... = ..... square cm	81 square cm

**2** Completet the following table :

The length	The width	The perimeter of the rectangle	The area of the rectangle
7 cm	5 cm	( ..... + ..... ) X ..... = ..... cm	..... X ..... = ..... square unit
10 cm	... cm	26 cm	..... X ..... = ..... square unit
... cm	5 cm	22 cm	..... X ..... = ..... square unit
8 cm	... cm	( ..... + ..... ) X ..... = ..... cm	72 square cm
... cm	6 cm	( ..... + ..... ) X ..... = ..... cm	66 square cm

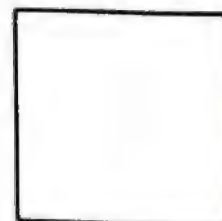
**3** Read the following problems. Sketch each shape and label it.

Then, answer the questions, showing your work below each question

**a** Gehad drew a square that has side lengths of 8 cm.

The Perimeter = .....

The Area = .....



**b** Ashraf has a rectangular rug in his house that measures 8 meters by 2 meters.

The Perimeter = .....

The Area = .....





**1** Completet the following table :

	The side length	The perimeter of the square	The area of the square
<b>a</b>	<b>6</b> cm	..... X ..... = ..... cm	..... X ..... = ..... Sq cm
<b>b</b>	<b>8</b> cm	..... X ..... = ..... cm	..... X ..... = ..... Sq cm
<b>c</b>	..... cm	<b>28</b> cm	..... X ..... = ..... Sq cm
<b>d</b>	..... cm	<b>20</b> cm	..... X ..... = ..... Sq cm
<b>e</b>	..... cm	..... X ..... = ..... cm	<b>25</b> Sq cm
<b>f</b>	..... cm	..... X ..... = ..... cm	<b>81</b> Sq cm

**2** Read the following problems. Sketch each shape and label it.  
Then, answer the questions, showing your work below each question

**a** Gehad drew a square that has side lengths of 8 cm.

**The Perimeter =** .....

**The Area =** .....



**b** A square with side lenght 10 cm .

**The Perimeter =** .....

**The Area =** .....



3 Completet the following table :

	The length	The width	The perimeter of the rectangle	The area of the rectangle
a	5 cm	3 cm	( ..... + ..... ) X ..... = ..... cm	X ..... = ..... Sq cm
b	4 cm	7 cm	( ..... + ..... ) X ..... = ..... cm	X ..... = ..... Sq cm
c	7 cm	..... cm	( ..... + ..... ) X ..... = ..... cm	42 Sq cm
d	9 cm	..... cm	( ..... + ..... ) X ..... = ..... cm	63 Sq cm
e	..... cm	8 cm	( ..... + ..... ) X ..... = ..... cm	72 Sq cm
f	..... cm	5 cm	( ..... + ..... ) X ..... = ..... cm	45 Sq cm
g	5 cm	..... cm	18 cm	X ..... = ..... Sq cm
h	7 cm	..... cm	34 cm	X ..... = ..... Sq cm
i	..... cm	4 cm	22 cm	X ..... = ..... Sq cm
j	..... cm	3 cm	30 cm	X ..... = ..... Sq cm



- 4** Read the following problems. Sketch each shape and label it.  
Then, answer the questions, showing your work below each question

- a** Ashraf has a rectangular rug in his house that measures 8 meters by 2 meters.

The Perimeter = .....

The Area = .....



- b** A rectangle with length 7 cm. and width 4 cm .

The Perimeter = .....

The Area = .....

- 5** The perimeter of Hala's rectangular bedroom is 26 meters.  
The length of her bedroom is 8 meters.  
What is the area of her room?

The width = .....

The area = .....

- 6** The area of a rectangle is 36 cm and the width of the rectangle is 4 cm . What is the perimeter of the rectangle ?

The length = .....

The perimeter = .....

- 7** The area of a square is 36 Sq cm .  
Find the perimeter of the square

$$36 = \dots \times \dots$$

The side length = .....

The perimeter = .....

- 8** The perimeter of a square is 40 cm.  
Find the area of the square.

The side length = .....

The area = .....

- 9** The rectangular field at the park has a total perimeter of 44 meters. The width of the field is 10 meters.

Draw a sketch of the field and label all the sides.

What is the area of the field?



## First Choose the correct answer

- a  $\frac{2}{6} \square \frac{2}{4}$  (  $<$  or  $=$  or  $>$  )
- b  $4 \times 5 = \dots\dots\dots$  (  $4 + 4 + 4 + 4$  or  $10 + 10$  or  $2 \times 7$  )
- c  $8 \times 20 = \dots\dots\dots$  (  $8 \times (4 + 5)$  or  $8 + (4 \times 5)$  or  $8 \times (4 \times 5)$  )
- d  $4 \times \dots > 21$  ( 4 or 5 or 6 )
- e  $3 \times 8 = 6 \dots 4$  (  $+$  or  $-$  or  $\times$  )

## Second Complete the following

- a The area of a square with side length 4 cm =  $\dots\dots\dots$  Sq cm
- b  $5 \times 8 = 32 + \dots\dots\dots$  c  $6 \times \dots\dots\dots = 60 - 6$
- d  $\frac{1}{4} + \frac{3}{4} = \dots\dots\dots = \dots\dots\dots$  e  $\frac{1}{3}, \frac{2}{6}, \frac{3}{\dots}, \frac{\dots}{\dots}$

## Third Answer the following

- a Find the result :
- ①  $4\,521 + 2\,572 = \dots\dots\dots$  ②  $8 \times 12 = \dots\dots\dots$
- ③  $9\,012 - 4\,090 = \dots\dots\dots$  ④  $(5 \times 4) + (5 \times 6) = 5 \times \dots\dots = \dots\dots\dots$

- b Arrangr the result of the following in an ascending order :

$8 \times 9$  ,  $4 \times (10 + 2)$  ,  $48 + 20$  ,  $7 + 7 + 7$  ,  $100 - 10$

$\dots\dots\dots$  ,  $\dots\dots\dots$  ,  $\dots\dots\dots$  ,  $\dots\dots\dots$  ,  $\dots\dots\dots$

- c Using the opposite figure to find :

7 cm

2 cm

- ① The perimeter =  $\dots\dots\dots$

- ② The area =  $\dots\dots\dots$



LESSON 3

Applications of Area and Perimeter

REMEMBER

Polygon

A closed shape formed from 3 line segments or more.



A polygon



Not a polygon



Triangle  
3 Sides



Quadrilateral  
4 Sides



Pentagon  
5 Sides



Hexagon  
6 Sides



Heptagon  
7 Sides



Octagon  
8 Sides

Polygons of different shapes have the same perimeter

Square



4 cm

The perimeter  
 $= 4 \times 4 = 16 \text{ cm}$

Rectangle



6 cm

2 cm

The perimeter  
 $= (6 + 2) \times 2 = 16 \text{ cm}$

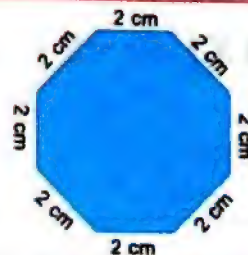
Triangle



7 cm

The perimeter  
 $= 7 + 5 + 4 = 16 \text{ cm}$

Octagon

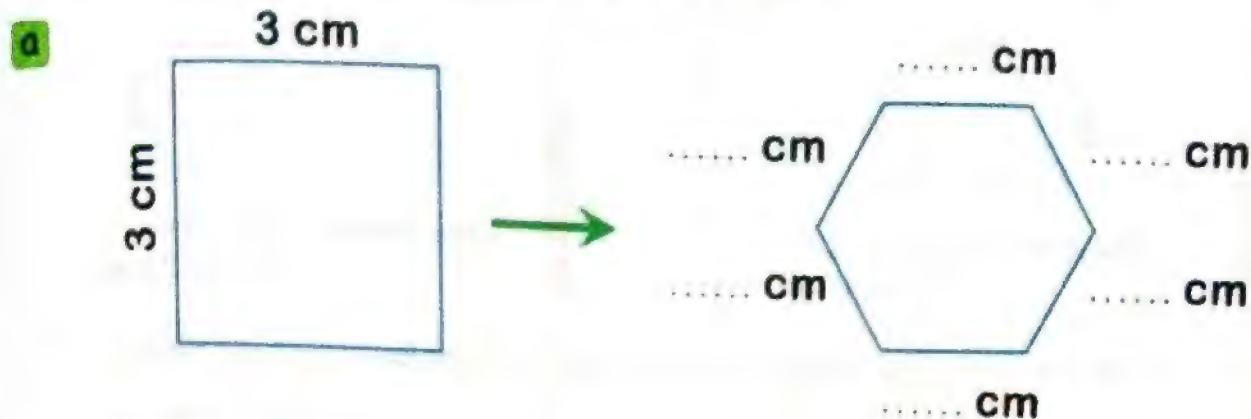


The perimeter  
 $= 2 \times 8 = 16 \text{ cm}$

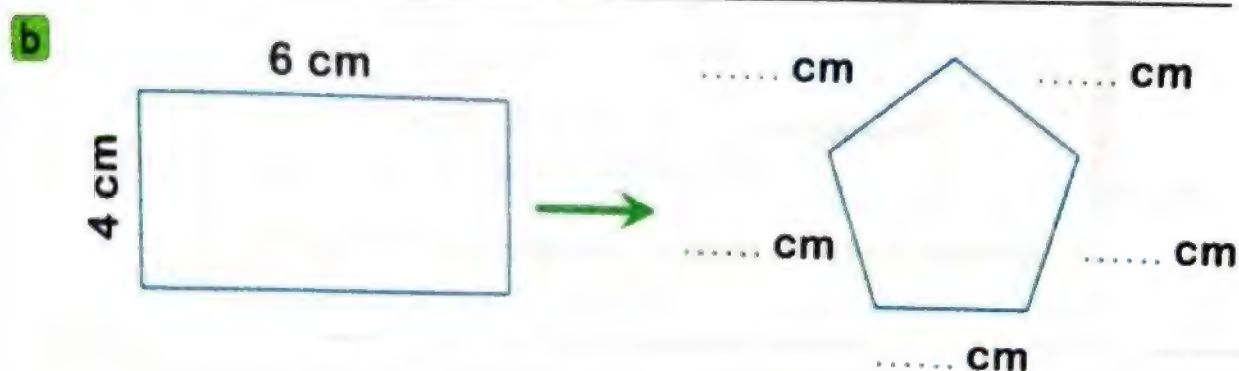
Square , rectangle , triangle , and octagon  
are different in number of sides but have the same perimeter



- 1** Find the perimeter of each of the following shapes, and then find the appropriate dimensions for the opposite shape to have the same perimeter :



The perimeter = .....




The perimeter = .....

- c** The side lengths of a triangle are 20 cm , 20 cm and 8cm.  
Then its perimeter = .....

Draw a rectangle with the same perimeter .  
Shows the lengths of its sides on the drawing

**Combine the two quadrilaterals together and find the perimeter and area of the resulting shape**


**First shape**



The perimeter =  $(4 + 3) \times 2$   
 $= 7 \times 2 = 14 \text{ cm}$

The area =  $4 \times 3 = 12 \text{ Sq cm}$

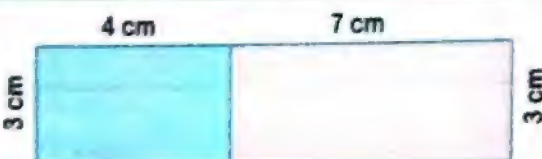
**Second shape**



The perimeter =  $(7 + 3) \times 2$   
 $= 10 \times 2 = 20 \text{ cm}$

The area =  $7 \times 3 = 21 \text{ Sq cm}$

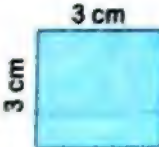
**The result shape**



The perimeter =  $4 + 7 + 3 + 7 + 4 + 3 = 28 \text{ cm}$   
 Or  $(11 + 3) \times 2 = 28 \text{ cm}$

The area =  $12 + 21 = 33 \text{ Sq cm}$  Or The area =  $11 \times 3 = 33 \text{ Sq cm}$

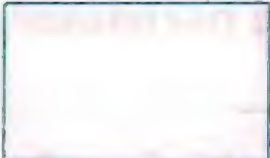
**First shape**



The perimeter =  $3 \times 4 = 12 \text{ cm}$

The area =  $3 \times 3 = 9 \text{ Sq cm}$

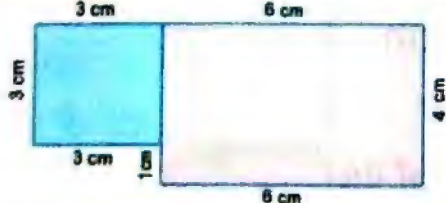
**Second shape**



The perimeter =  $(6 + 4) \times 2$   
 $= 20 \text{ cm}$

The area =  $6 \times 4 = 24 \text{ Sq cm}$

**The result shape**



The perimeter =  $3 + 3 + 6 + 4 + 6 + 1 + 3 = 26 \text{ cm}$

The area =  $9 + 24 = 33 \text{ Sq cm}$



- 2** Moustafa drew three rectangles next to each other. Each rectangle was 5 cm long and 2 cm wide.

**a** Sketch the three rectangles.

**b** What is the perimeter of one rectangle?

.....  
.....

**c** What is the area of one rectangle?

.....  
.....

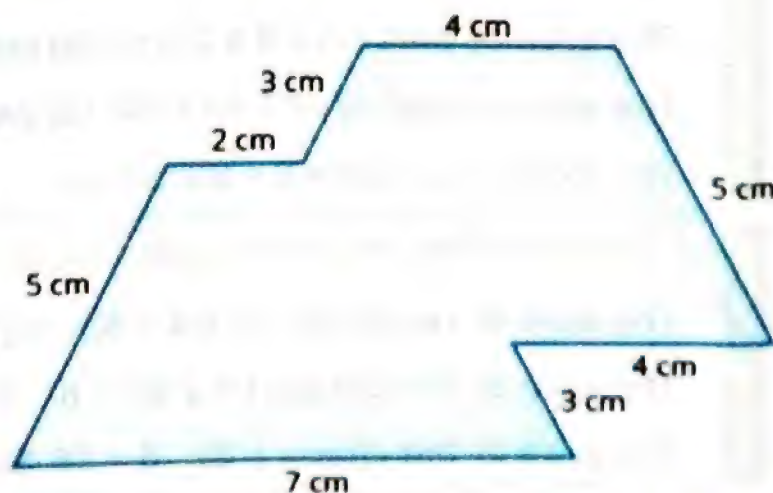
**d** What is the perimeter of all three rectangles together?

.....  
.....

**e** What is the area of all three rectangles together?

.....  
.....

- 3** Fares measured the following shape and labeled its sides. Find is the perimeter of Faress' shape.



# Divide the compound geometric shapes into quadrilaterals to find area

To find the shape area:

- (1) We divide the figure into quadrilateral shapes ( two or more )
- (2) We calculate the area of each figure.

The area of part (1)

$$= 4 \times 2 = 8 \text{ Sq cm}$$

The area of part (2)

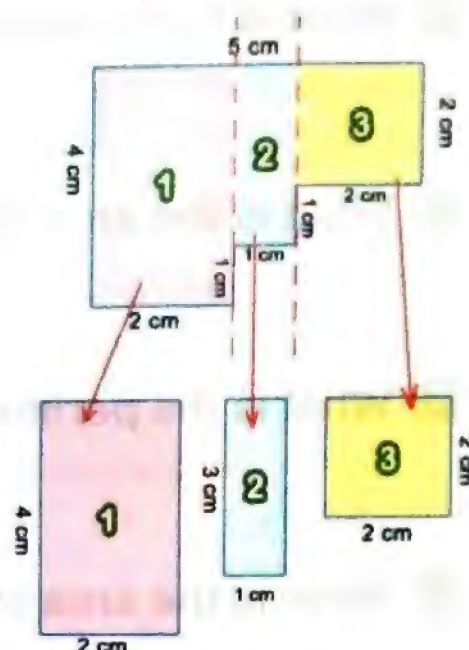
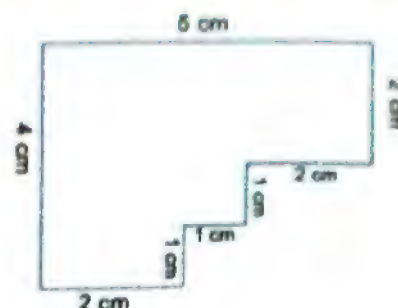
$$= 3 \times 1 = 3 \text{ Sq cm}$$

The area of part (3)

$$= 2 \times 2 = 4 \text{ Sq cm}$$

- (3) Add the areas we got to get the total area of the shape.

The total area of shape =  $8 + 3 + 4 = 15 \text{ Sq cm}$



**Example**

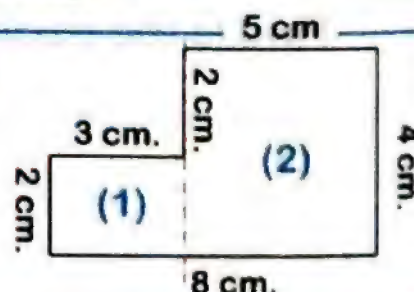
Calculate the area of the opposite shape :

( We divide the shape into two rectangles )

The area of part (1) =  $3 \times 2 = 6 \text{ Sq cm}$

The area of part (2) =  $5 \times 4 = 20 \text{ Sq cm}$

The total area =  $20 + 6 = 26 \text{ Sq cm}$

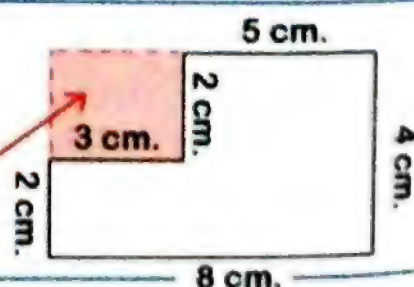


( Calculate the area of the part that is cut )

The area of rectangle =  $8 \times 4 = 32 \text{ Sq cm}$

The area of the cut part =  $2 \times 3 = 6 \text{ Sq cm}$

The area of the shape =  $32 - 6 = 26 \text{ Sq cm}$



The Solution

Another Solution



- 4** Hala drew a sketch of what she wanted her room to look like using centimeters. The total perimeter is 42 cm.

Find **a** The missing measurements .

**b** The area of the shape .

The area of the shape .

.....

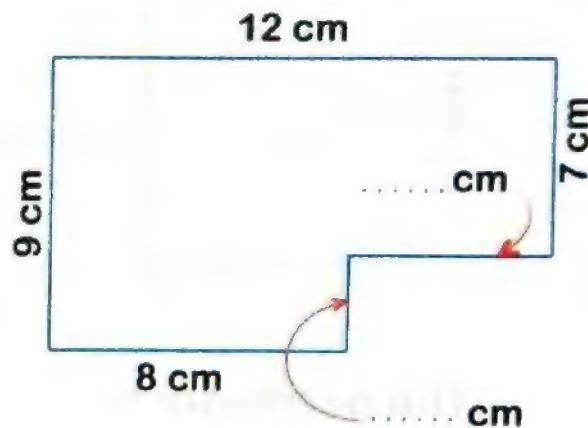
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- 5** Draw a complex shape made of more than one quadrilateral that has a perimeter of 24 and then ,  
Find the area of the complex shape.

.....

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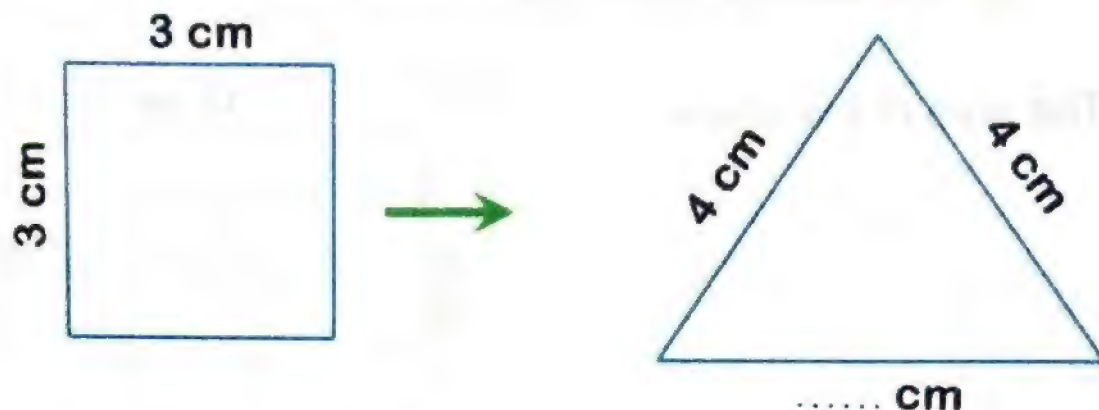
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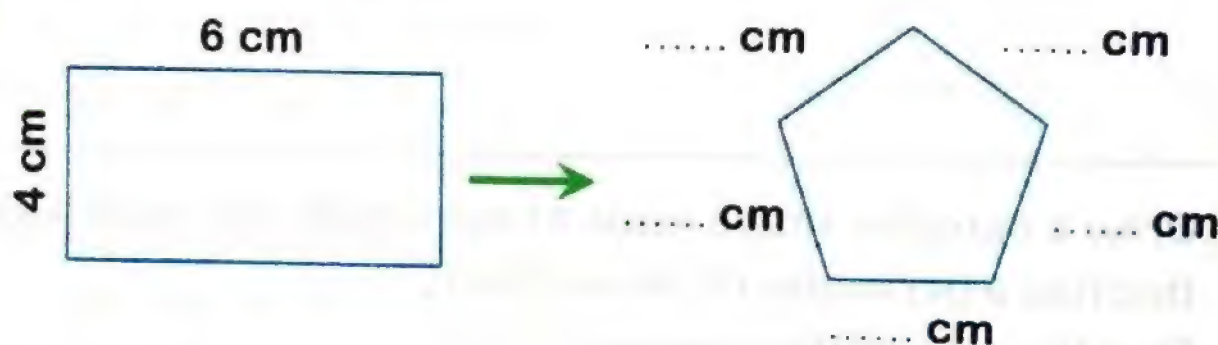
- 1** Find the perimeter of each of the following shapes, and then find the appropriate dimensions for the opposite shape to have the same perimeter :

**a**



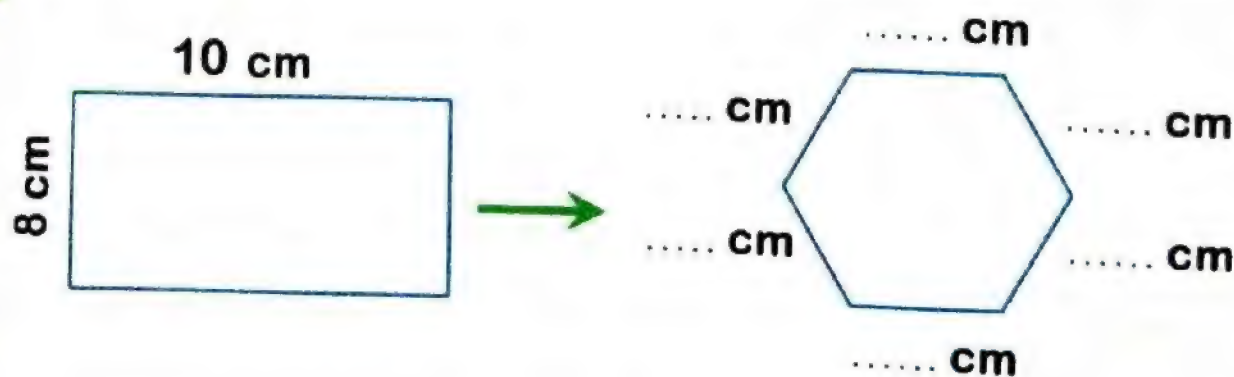
The perimeter = .....

**b**



The perimeter = .....

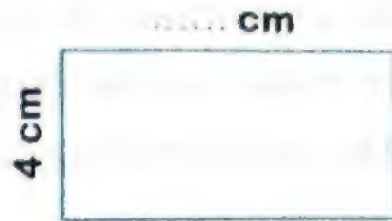
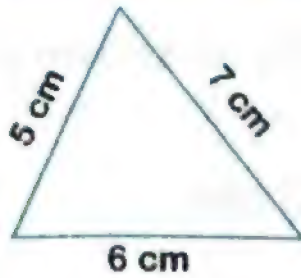
**c**



The perimeter = .....

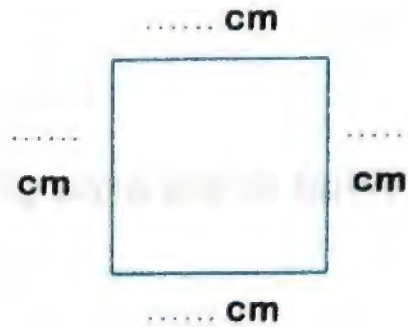
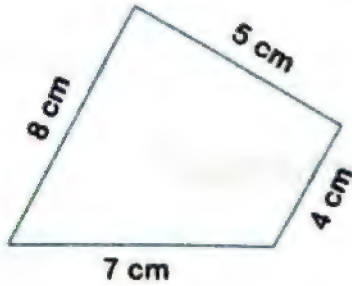


d



The perimeter = .....

e



The perimeter = .....

f The side lengths of a triangle are 8 cm , 7 cm and 7 cm

Then its perimeter = .....

Draw a rectangle with the same perimeter .  
Shows the lengths of its sides on the drawing



9 Mohab drew a hexagon with a perimeter of 24 cm.  
Sketch Mohab's hexagon .

Draw a qudrilateral with the same perimeter .  
Shows the lengths of its sides on the drawing

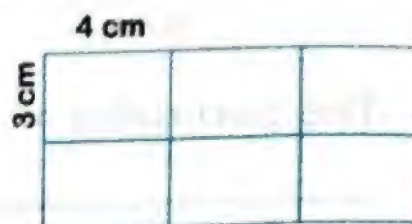


Hexagon

Quadrilateral

- 2** Magdy draws 6 equal-sized rectangles as shown below to make a new, larger rectangle.

The small rectangles are 4 cm by 3 cm.



- a** What is the perimeter of Magdys' new rectangle?

.....

.....

- b** What is the area of Magdys' new rectangle?

.....

- 3** Jana draws a rectangle with a length of 7 cm and a width of 4 cm, and Mona draws a rectangle with a length of 5 cm and a width of 4 cm.

- a** Sketch Jana and Mona's rectangles:

- b** What is the perimeter of Jana's rectangle?

.....

- c** What is the perimeter of Mona's rectangle?

.....

- d** What would be the perimeter if they laid their rectangle side by side to make one long rectangle?

.....

.....

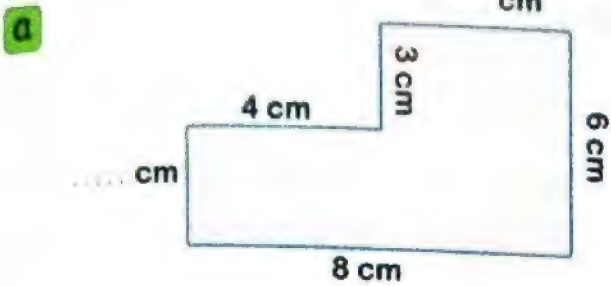
- e** What is the area of the new long rectangle?

.....

.....

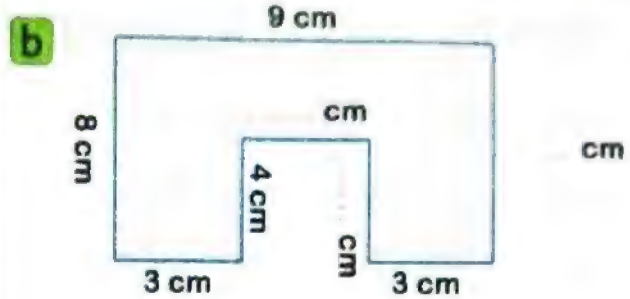


**4** Find the missing lengths and write them on the graph, then find the area and perimeter of each of the following :



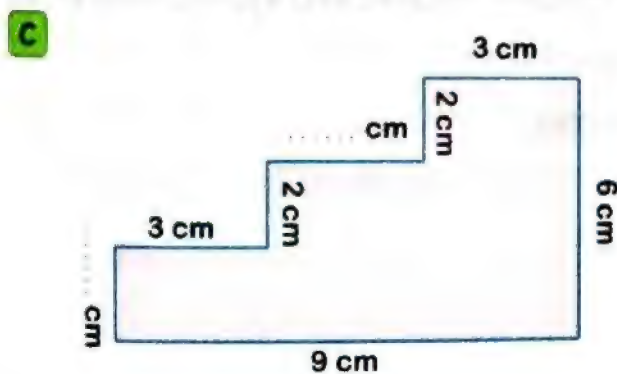
The Perimeter = .....

The area = .....



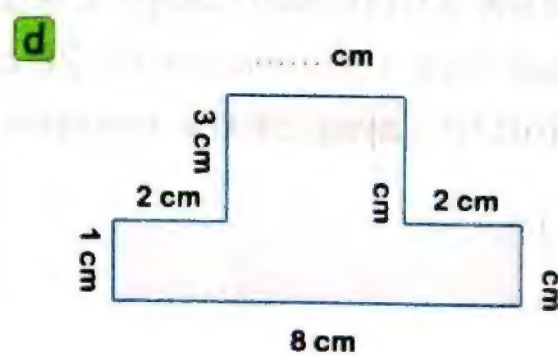
The Perimeter = .....

The area = .....



The Perimeter = .....

The area = .....



The Perimeter = .....

The area = .....

- 5** Draw a complex shape made of more than one quadrilateral that has a perimeter of 16 cm and then ,  
Find the area of the complex shape.

.....

.....

.....

.....

.....

.....

.....

.....

- 6** Draw a complex shape made of more than one quadrilateral that has a perimeter of 26 cm and then ,  
Find the area of the complex shape.

.....

.....

.....

.....

.....

.....

.....

.....



## First Choose the correct answer

- a The area of a square is 9 Sq cm , then its perimeter = ..... cm  
( 36 or 81 or 12 )
- b  $8 \times 3 = (8 \times 2) + \dots\dots\dots$  ( 1 or 8 or 24 )
- c 70 thosands = ..... tens ( 70 or 700 or 7 000 )
- d  $\dots\dots \div 5 = 2 \times 4$  ( 40 or 8 or 13 )
- e  $\frac{1}{2} \square \frac{1}{7}$  ( < or = or > )

## Second Complete the following

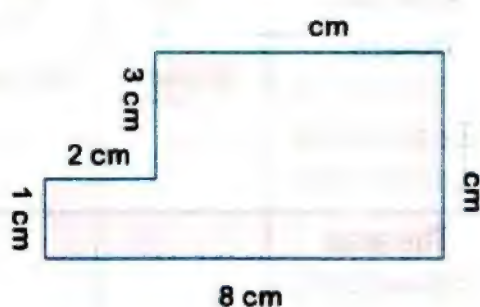
- a  $7 \times 8 = (7 \times \dots\dots) + (\dots\dots \times 5) = \dots\dots + \dots\dots = \dots\dots$
- b  $3 \times 8 = \dots\dots + \dots\dots + \dots\dots + \dots\dots$
- c The number ..... comes righth before 75 000
- d  $\dots\dots - \frac{3}{7} = \frac{4}{7}$
- e  $\frac{6}{8} = \frac{\dots\dots}{4}$

## Third Answer the following

- a Find the missing lengths and write them on the graph, then find the area and perimeter

The Perimeter = .....

The area = .....



- b The lamp needs 4 batteries for lighting.  
How many batteries do you need for 12 light bulbs?

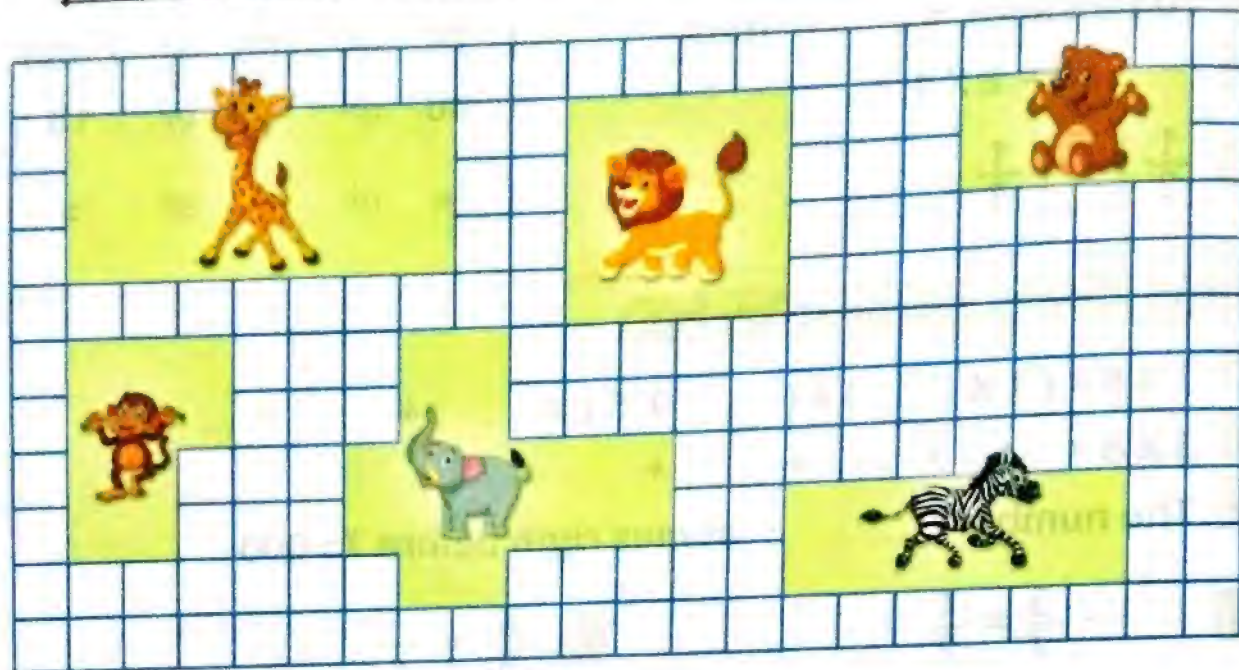


LESSON







4

# Activities on perimeter and area

Mohamed went to the zoo and then made a sketch of the park as shown. Consider the drawing, then answer :



1 Complete the following table :

Animal house	 Monkey	 The elephant	 giraffe	 The lion	 The bear	 Zebra
The perimeter (Length unit)						
The area (Square unit)						

2 Complete using ( $<$ ,  $=$  or  $>$ ) :

a The area of Monkey house

The area of Elephant house

b The perimeter of Giraffe House

The perimeter of Lion House

c The area of Bear house

The area of Zebra house

d The perimeter of Monkey house

The perimeter of Elephant house

e The area of Giraffe House

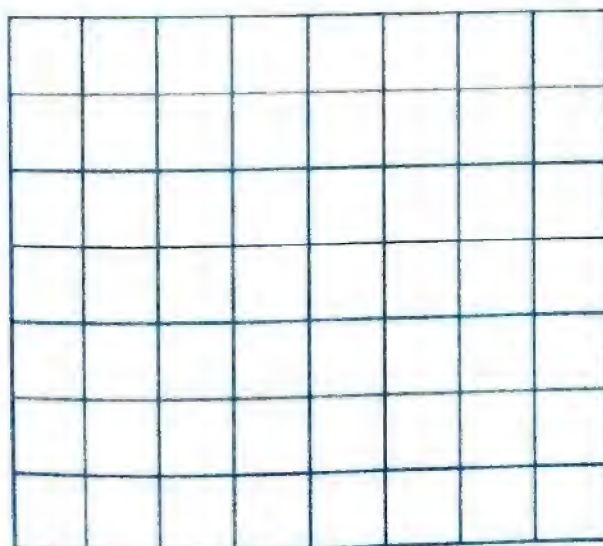
The area of Lion House



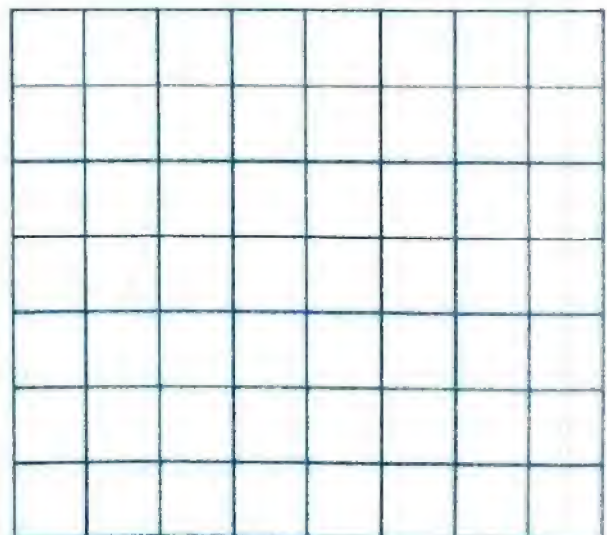
**3** Complete the following :

- a** The animal that has the largest house in the perimeter is .....
- b** The animal that has the smallest house in the perimeter is .....
- c** The animal that has the largest house in area is .....
- d** The animal that has the smallest house in area is .....
- e** The difference between the perimeters of the house of the giraffe and the house of elephant .....
- f** The difference between the two areas of the lion and the house of monkey house .....
- g** The difference between the two perimeter of the house Bear and the house of zebra .....
- h** The difference between the two areas of the house of the lion and the house of giraffe .....

**4 a** Draw another shape the same area as the lion's house



**b** Draw another shape the same perimeter as the bear's house



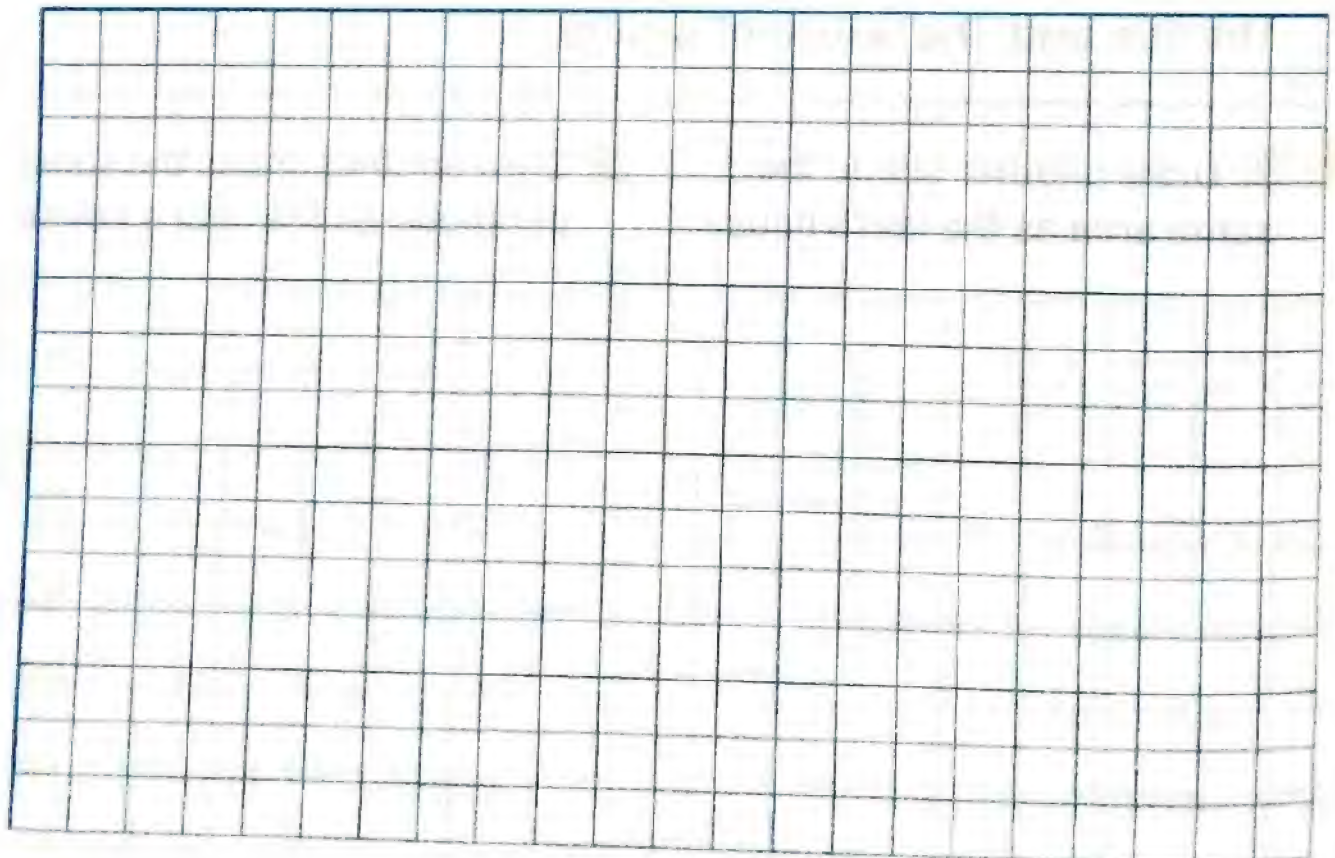


# MY DREAM HOUSE

Draw your dream home. Using the dimensions shown in the following table , Draw furniture and appliances And other details to show the purpose of using each room.

Remember that you are Overlooks the rooms from the top.

The name of the room	Length ( length unit )	Width ( length unit )	Perimeter ( length unit )	The Area ( square units)
Bedroom (1)	9	7		
Bedroom (2)	11	5		
Living room	8	6		
The kitchen	7	4		
The toilet	4	2		
The garden	3	1		





**1** Complete the following:

- a** The largest room in area is .....
- b** The largest room in the perimeter is .....
- c** The smallest room in area is .....
- d** The smallest room in the perimeter is .....
- e** The difference between living room area and bedroom (1) area is .....
- g** The difference between the kitchen perimeter and bathroom perimeter is .....

**2** Complete using ( $<$ ,  $=$  or  $>$ ):

The area of

The area of

**a** The bedroom (1)

The bedroom (2)

**b** The living room

The kitchen

**c** The bathroom

The garden

**3** Complete using ( $<$ ,  $=$  or  $>$ ):

The perimeter of

The perimeter of

**a** The bedroom (1)

The bedroom (2)

**b** The living room

The kitchen

**c** The bathroom

The garden

**First** Choose the correct answer

- a  $8 \times \dots = (8 \times 9) + (8 \times 6)$  ( 15 or 54 or 2 )
- b  $4 \times (5 \times 9) = \dots \times 9$  ( 9 or 20 or 45 )
- c  $\frac{3}{5} = \dots$  ( three fifths or five thirds or thirty five )
- d  $\frac{2}{6} \square \frac{2}{8}$  ( < or = or > )
- e The largest 5 - digit number can be formed from the digits ( 2, 7 and 5 ) is  $\dots$  ( 25 777 or 7 5200 or 77 752 )

**Second** Complete the following

- a The area of a rectangle is 56 cm , and its length 8 cm then , the perimeter of the rectangle =  $\dots$  cm
- b  $3 + 3 + 3 + 3 + 3 + 3 = 2 \times \dots$
- c There are  $\dots$  ninths in the whole one .
- d  $\frac{3}{6} = \frac{9}{\dots}$  e  $\frac{1}{4} = \frac{2}{\dots} = \frac{3}{\dots} = \frac{4}{\dots}$

**Third** Answer the following

- a Find the result :

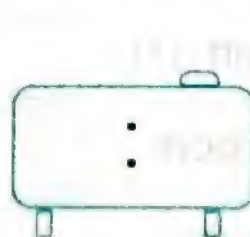
①  $\begin{array}{r} 4\ 5\ 6\ 2 \\ +\ 4\ 3\ 8 \\ \hline \end{array}$

②  $\begin{array}{r} 4\ 0\ 0\ 0 \\ -\ 5\ 6\ 3 \\ \hline \end{array}$

③  $\frac{1}{7} + \frac{2}{7} + \frac{3}{7} = \frac{\dots}{\dots}$

④  $1 - \frac{4}{9} = \frac{\dots}{\dots}$

- b Hatem went to see the movie at 7 : 25 and the movie lasted for two hours until the movie ended ( Complete )



The beginning of the movie  $\rightarrow$  The end of the movie



# CHAPTER

## Six



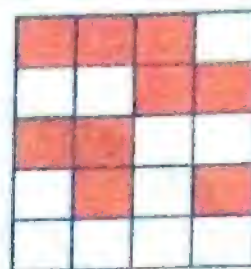
LESSON

1

# Geometry and Fractions

## Halves of Geometric Shapes

Number of all squares = 20  
 Number of colored squares = 10  
 Number of uncolored squares = 10



Number of all parts = 12  
 Number of colored parts = 6  
 Number of uncolored parts = 6



The area of colored parts  
 = The area of uncolored parts



The fraction that represents the previous shapes is

$$\frac{1}{2}$$

Because the number of colored parts equals the number of parts that are not colored

**1** Put a sign (✓) next to the shape that represents ( $\frac{1}{2}$ )

a



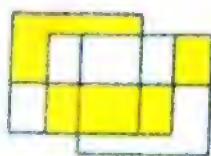
b



c



d



e



f





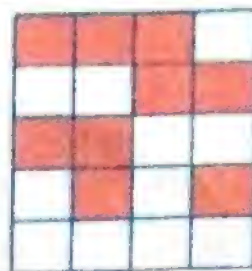
# Geometry and Fractions

## Halves of Geometric Shapes

Number of all squares = 20

Number of colored squares = 10

Number of uncolored squares = 10



Number of all parts = 12

Number of colored parts = 6

Number of uncolored parts = 6



The area of colored parts

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a



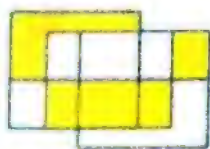
b



c



d



e



f





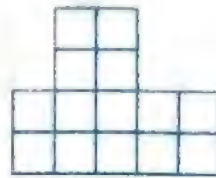
**2** Shade half of each shape below and then, write the equivalent fraction to ( $\frac{1}{2}$ )



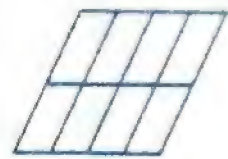
**a**  $\frac{1}{2} = \frac{\dots}{\dots}$



**b**  $\frac{1}{2} = \frac{\dots}{\dots}$

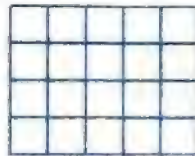


**c**  $\frac{1}{2} = \frac{\dots}{\dots}$



**d**  $\frac{1}{2} = \frac{\dots}{\dots}$

**3** Shade half of each of the following shapes in different ways.



**4** Calculate the area of the colored part:

**Example**

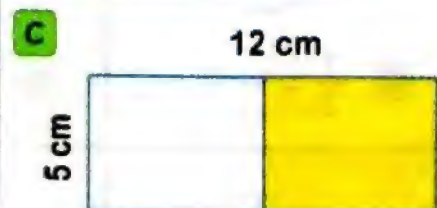
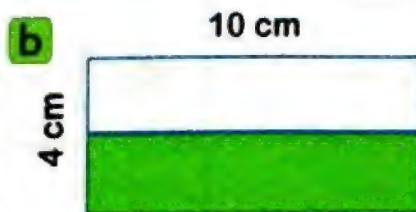
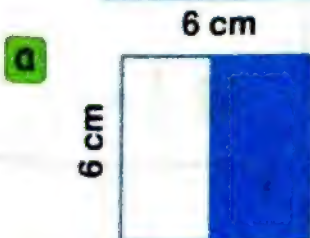
The area of all shape =  $8 \times 5 = 40$  Sq cm

The area of colored part =  $40 \div 2 = 20$  Sq cm

or

Half of the length =  $8 \div 2 = 4$  cm

The area =  $5 \times 4 = 20$  cm





1 Put a sign (✓) next to the shape that represents  $(\frac{1}{2})$

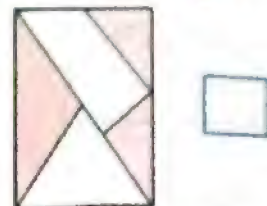
a



b



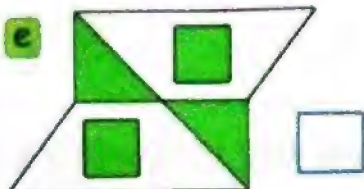
c



d



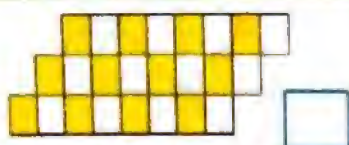
e



f



g



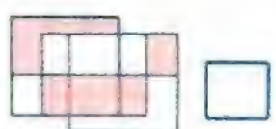
h



i



j



k



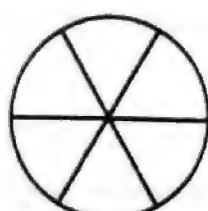
l



2 Shade half of each shape below and then, write the equivalent fraction to  $(\frac{1}{2})$



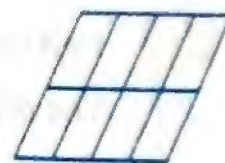
a  $\frac{1}{2} = \frac{\dots}{\dots}$



b  $\frac{1}{2} = \frac{\dots}{\dots}$



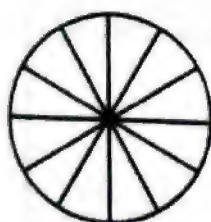
c  $\frac{1}{2} = \frac{\dots}{\dots}$



d  $\frac{1}{2} = \frac{\dots}{\dots}$



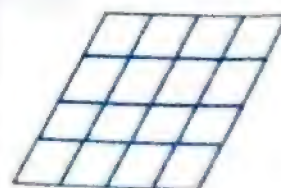
f  $\frac{1}{2} = \frac{\dots}{\dots}$



g  $\frac{1}{2} = \frac{\dots}{\dots}$



h  $\frac{1}{2} = \frac{\dots}{\dots}$



i  $\frac{1}{2} = \frac{\dots}{\dots}$

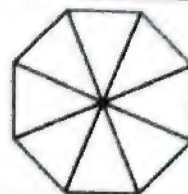
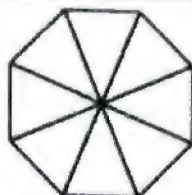
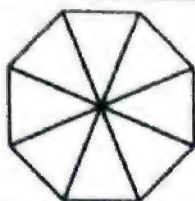


**3** Shade half of each of the following shapes in different ways.

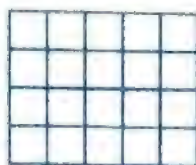
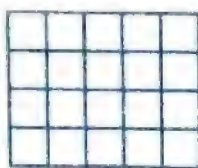
a



b



c

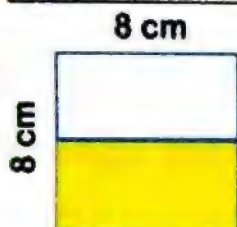


d

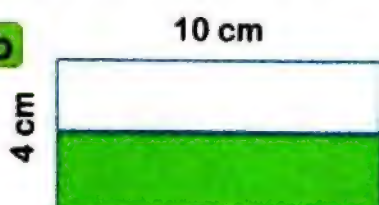


**4** Calculate the area of the colored part:

a



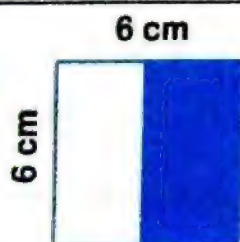
b



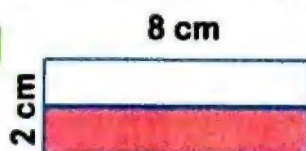
c



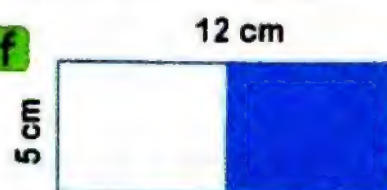
d



e



f





- 5** Doha creates a fenced garden in a field.  
The garden is a rectangle measuring 6 meters by 8 meters.  
She wants to grow fruit in  $\frac{1}{2}$  of the garden.  
What is the area of  $\frac{1}{2}$  of her garden?
- .....
- .....
- .....
- .....

- 6** Jana needs to paint a wall equally with two different colors.  
The wall is 8 meters by 4 meters.  
How much of the wall should she paint with one color?
- .....
- .....
- .....
- .....

- 7** Ola is wrapping presents. She needs 32 square units to wrap a present. How many presents can she wrap if her paper is 8 units long by 6 units wide?
- .....
- .....
- .....
- .....

## First Choose the correct answer

- a  $5 + 5 + 5 + 5 + 5 + 5 = \dots\dots\dots$  (  $5 \times 6$  or  $5 + 6$  or  $5 \times 5$  )
- b  $9 \times 2 = 10 \dots\dots 8$  (  $\times$  or  $+$  or  $-$  )
- c  $4 \times \dots\dots = 24$  (  $8$  or  $7$  or  $6$  )
- d  $\frac{1}{2} = \frac{3}{\dots\dots}$  (  $4$  or  $6$  or  $12$  )
- e  $\dots\dots - \frac{2}{5} = \frac{3}{5}$  (  $1$  or  $\frac{1}{5}$  or  $\frac{2}{5}$  )

## Second Complete the following

- a The side length of a square is 5 cm then its perimeter =  $\dots\dots$  cm
- b  $7 \times 18 = (7 \times 10) + (7 \times \dots\dots) = \dots\dots + \dots\dots = \dots\dots$
- c The smallest 5 - different - digit number is  $\dots\dots\dots$
- d If  $4 \times 15 = 60$  then ,  $60 \div \dots\dots = 4$
- e  $4 \times 9 = \dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots + \dots\dots$

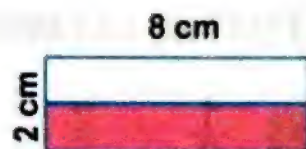
## Third Answer the following

- a Arrange the folloeing fractions in an ascending order :

$$\frac{3}{5} , \frac{3}{8} , \frac{3}{4} , \frac{3}{7}$$

$\dots\dots\dots , \dots\dots\dots , \dots\dots\dots , \dots\dots\dots$

- b Calculate the area of the colored part:



- c A road is 3 meters long and 2 meters wide. Paving half of it. What is the area of the part that has been paved?



LESSON 2

# Ordering Fractions Using the Number Line

**Example**

Arrange the following fractions in an ascending order

$\frac{2}{3}$  ,  $\frac{5}{6}$  ,  $\frac{1}{2}$  ,  $\frac{3}{4}$  ( using the number line )

**Step 1**

Draw the numbers line and divide it according to the largest denominator



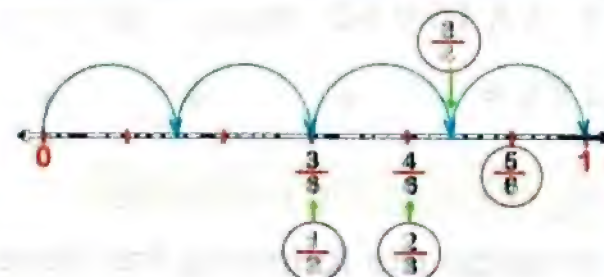
**Step 2**

We find equivalent fractions and represent them on a number line



**Step 3**

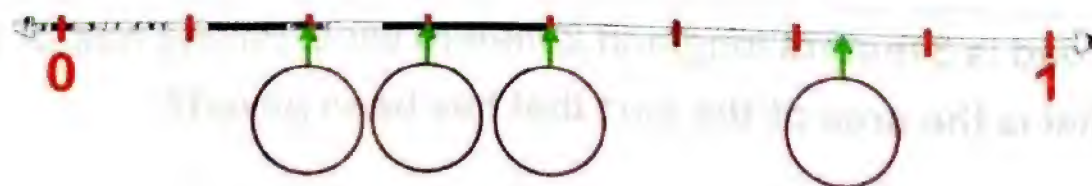
We represent the remaining fraction on the number line  
We divide the number line by denominator, ignoring the other signs



**The order :**  $\frac{1}{2}$  ,  $\frac{2}{3}$  ,  $\frac{3}{4}$  ,  $\frac{5}{6}$

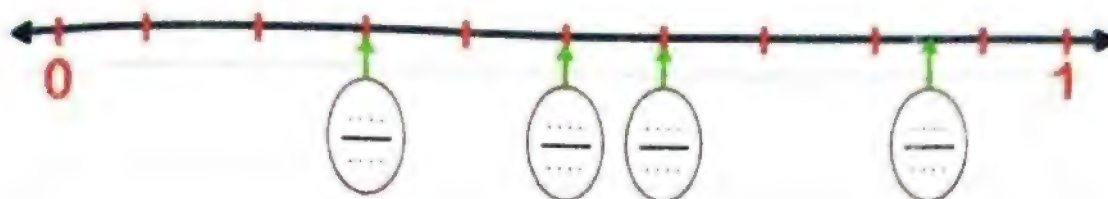
**Place the following fractions on the number line, then write them in ascending order**

$\frac{1}{2}$  ,  $\frac{2}{3}$  ,  $\frac{1}{4}$  ,  $\frac{3}{8}$



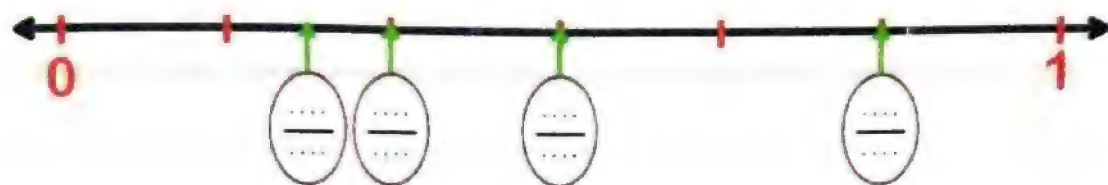
**The order :** ..... , ..... , ..... , .....

**b**  $\frac{3}{5}$  ,  $\frac{1}{2}$  ,  $\frac{5}{8}$  ,  $\frac{3}{10}$



The order : \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

**c**  $\frac{1}{2}$  ,  $\frac{5}{6}$  ,  $\frac{1}{4}$  ,  $\frac{1}{3}$



The order : \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

**2** Arrange the following numbers in an ascending order :  
( Use the opposite number line )

**a**  $\frac{1}{4}$  ,  $\frac{5}{8}$  ,  $\frac{1}{2}$  ,  $\frac{1}{3}$



The order : \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

**b**  $\frac{1}{4}$  ,  $\frac{1}{5}$  ,  $\frac{8}{10}$  ,  $\frac{3}{6}$



The order : \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

**c**  $\frac{1}{3}$  ,  $\frac{1}{6}$  ,  $\frac{3}{5}$  ,  $\frac{4}{8}$



The order : \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_



- 3** Mark 3 different fractions less than  $\frac{1}{2}$  on the number line



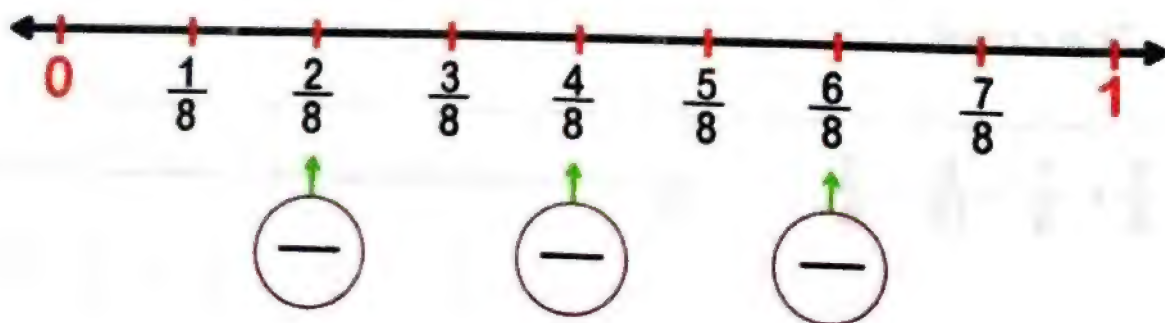
....., ....., .....

- 4** Mark 3 different fractions more than  $\frac{1}{3}$  on the number line



....., ....., .....

- 5** Look at the number line below. Then, find at least three other equivalent fractions that could be placed on the number line and write them:



**1** Place the following fractions on the number line, then write them in ascending order

**a**  $\frac{2}{3}$  ,  $\frac{3}{4}$  ,  $\frac{1}{6}$  ,  $\frac{1}{2}$



The order : ....., ....., ....., .....

**b**  $\frac{5}{9}$  ,  $\frac{1}{4}$  ,  $\frac{1}{3}$  ,  $\frac{3}{6}$



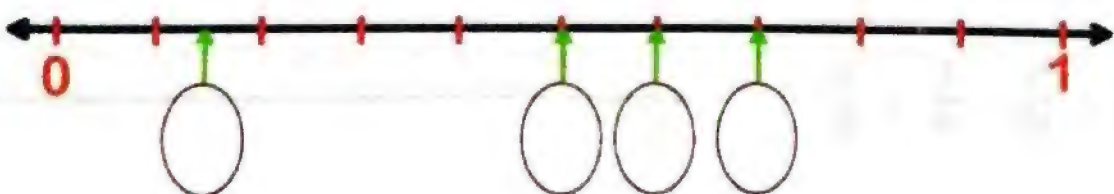
The order : ....., ....., ....., .....

**c**  $\frac{3}{8}$  ,  $\frac{1}{4}$  ,  $\frac{3}{6}$  ,  $\frac{2}{3}$



The order : ....., ....., ....., .....

**d**  $\frac{3}{5}$  ,  $\frac{7}{10}$  ,  $\frac{1}{7}$  ,  $\frac{4}{8}$



The order : ....., ....., ....., .....



**2** Arrange the following numbers in an ascending order :  
( Use the opposite number line )

**a**  $\frac{5}{8}, \frac{5}{6}, \frac{1}{2}, \frac{3}{4}$



The order : ....., ....., ....., .....

\_\_\_\_\_

**b**  $\frac{1}{6}, \frac{2}{3}, \frac{1}{4}, \frac{4}{8}$



The order : ....., ....., ....., .....

\_\_\_\_\_

**c**  $\frac{1}{4}, \frac{1}{5}, \frac{8}{10}, \frac{3}{6}$



The order : ....., ....., ....., .....

\_\_\_\_\_

**d**  $\frac{3}{5}, \frac{2}{3}, \frac{1}{9}, \frac{2}{6}$



The order : ....., ....., ....., .....

\_\_\_\_\_

**e**  $\frac{1}{3}, \frac{1}{6}, \frac{3}{5}, \frac{4}{8}$



The order : ....., ....., ....., .....

\_\_\_\_\_

**f**  $\frac{3}{6}, \frac{1}{10}, \frac{1}{4}, \frac{4}{5}$



The order : ....., ....., ....., .....

**a** Mark 3 different fractions less than  $\frac{1}{2}$  on the number line



....., ....., .....

**b** Mark 3 different fractions more than  $\frac{1}{2}$  on the number line



....., ....., .....

**c** Mark 3 different fractions more than  $\frac{1}{3}$  on the number line



....., ....., .....

**d** Mark 3 different fractions less than  $\frac{2}{3}$  on the number line



....., ....., .....

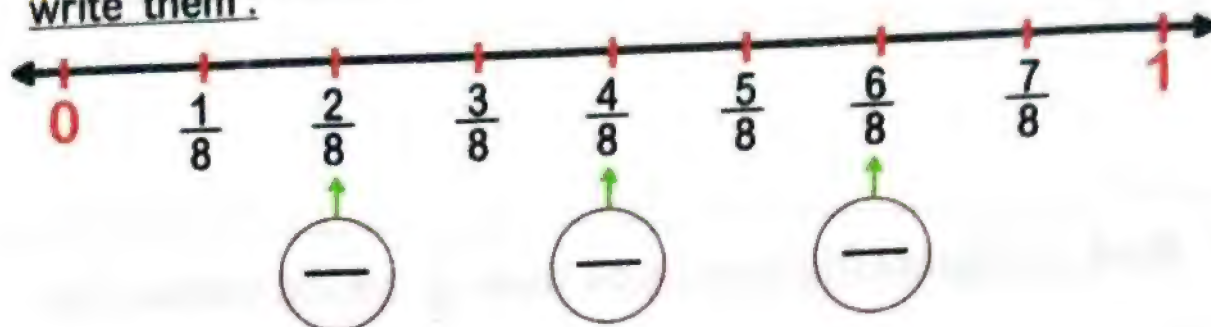
**e** Mark 3 different fractions more than  $\frac{1}{4}$  on the number line



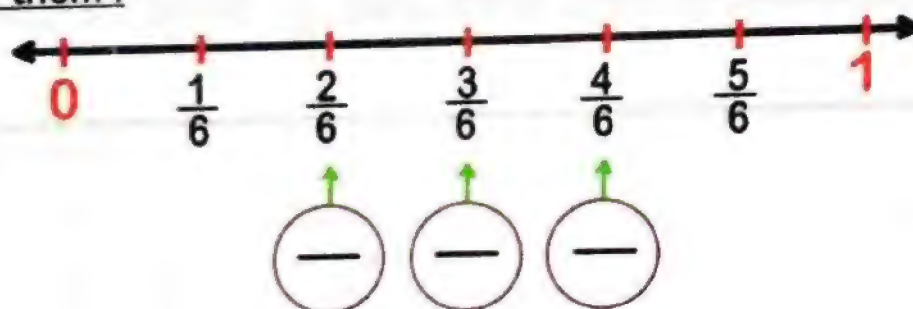
....., ....., .....



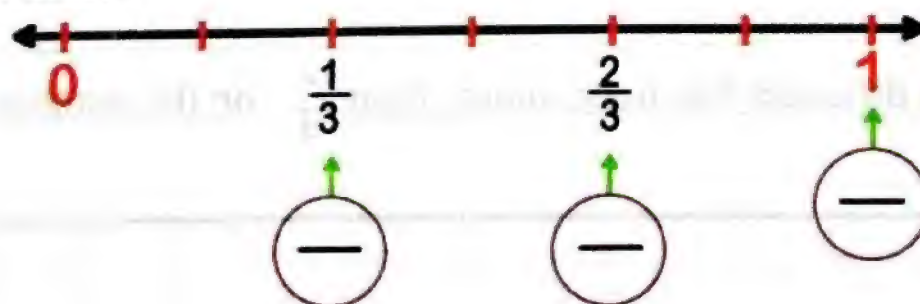
- 4** Look at the number line below. Then, find at least three other equivalent fractions that could be placed on the number line and write them :



- 5** Look at the number line below. Then, find at least three other equivalent fractions that could be placed on the number line and write them :



- 6** Look at the number line below. Then, find at least three other equivalent fractions that could be placed on the number line and write them :



## First Choose the correct answer

- a The value of the digit 8 in the number 75 863 is .....  
( 800 or 8 000 or 80 000 )
- b  $5 \times 40 = \dots \times 10$  ( 9 or 20 or 10 )
- c 25 hundreds  20 500 ( < or = or > )
- d  $3 \times 4 = 4 \times 3$  ( ..... property )  
( Commutative or asociative or distributive )
- e .....  $\times (5 + 9) = (7 \times 5) + (7 \times 9)$  ( 9 or 5 or 7 )

## Second Complete the following

- a  $24\ 637 = \dots$  Thousands + ..... Hundreds + ..... Tens + ..... ones
- b The area of the rectangle = .....  $\times$  .....
- c  $5 \times (8 \times \dots) = (\dots \times 8) \times 3$
- d  $\frac{1}{4} + \frac{2}{4} + \frac{1}{4} = \dots$  e  $\frac{1}{8} = \frac{5}{\dots}$

## Third Answer the following

- a Find the result :

① 
$$\begin{array}{r} 4\ 2\ 1\ 6 \\ + 1\ 7\ 3\ 4 \\ \hline \end{array}$$

② 
$$\begin{array}{r} 8\ 2\ 4\ 1 \\ - 5\ 0\ 2 \\ \hline \end{array}$$

③ 
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

④ 
$$\begin{array}{r} \dots \\ 8 \overline{) 32} \\ \hline \end{array}$$

- b Arrange the following numbers in an ascending order :  
( Use the opposite number line )

$\frac{1}{6}, \frac{2}{3}, \frac{1}{4}, \frac{4}{8}$



The order : ....., ....., ....., .....

- c Use two numbers 5 , 8 to complete fact family

①  $\times =$

②  $\div =$

③  $\times =$

④  $\div =$





LESSON 3

# Operations on Numbers

REMEMBER

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
3	6	4	8	7	2

Standard Form

364 872

Word Form

Three hundred sixty four thousand, eight hundred and seventy two

Short Word Form

364 Thousands and 872

Expanded Form

$300\ 000 + 60\ 000 + 4\ 000 + 800 + 70 + 2$   
 364 Thousands + 8 Hundreds + 7 Tens + 2 Ones

The place-value

The value

Hundred-Thousands	Ten-Thousands	Thousands	Hundreds	Tens	Ones
5	5	5	5	5	5
500 000	50 000	5 000	500	50	5

Example

The digit 5 in the number 35 792 is:  
 In the place of thousands and its value is 5 000

Example

The number 56 258 comes right after 56 257

The number that comes right after 56 258 is 56 259

Example

The number 336 999 comes right before 337 000

The number that comes right before 336 999 is 336 998



**1 Complete the following :**

- a** Twenty five thousand, six hundred and eleven = .....  
( Standard form )
- b** 700 618 ( Word form ) : .....
- c**  $700\ 000 + 70\ 000 + 5\ 000 + 800 + 50 + 3 =$  .....
- d** 98 thousand + 6 ones + 5 tens + 7 hundreds = .....
- e**  $70 + 0 + 0 + 4 =$  .....
- f**  $7\ 856 =$  ..... + ..... + ..... + .....
- g**  $552\ 159 =$  ... tens + ..... thousands + ... ones + ... hundreds
- h** The number that comes right after 36 299 is .....
- i** The number 700 250 comes right after .....
- j** The number ..... comes right after 899 999.
- k** The number that comes right before 75 000 is .....
- l** The number 3 156 comes right before .....
- m** The number ..... comes right before 15 200.
- n** The place value of the digit 5 in the number 224 569  
is .....
- o** The place value of the digit 7 in the number 789 895  
is .....
- p** The value of the digit 7 in the number 79 159 is .....
- q** The value of the digit 2 in the number 8 128 is .....
- r** The largest 5-digit number is .....
- s** The smallest 6-digit number is .....
- t** The largest and the smallest number formed from the  
digits ( 7 , 2 , 0 , 6 and 3 ) are ..... and .....



**2 Complete the following table :**

	The Number	The value of the encircled digit	The place-value of the encircled digit
a	455 369		
b	362 512		
c	280 239		
d	696 274		
e	51 780		
f	39 924		

**3 Complete using the following set of numbers**
**a** ( 3 , 5 , 0 , 4 , 7 )

The largest number : .....

The smallest number : .....

**b** ( 8 , 5 , 4 )

The largest 6-digit number : .....

The smallest 6-digit number : .....

**4 Complete using ( < , = or > ) :**
**a** 255 458  667 102

**d** 45 000 + 45  45 450

**b** 155 258  155 528

**e** 20 hundreds  2 000

**c** 50 502  50 205

**f** 3 + 500 + 2000  3 520

**g** 45 thousands + 5 hundreds + 31 tens  45 810

**h** The smallest 5-different-digit number  12 345

**i** Ninety thousand and nine  900 009

**1** Choose the correct answer:

- a** Seven hundred thousand and seventy = .....  
( 700 070 *or* 700 017 *or* 770 000 )
- b**  $5 + 20 + 400 + 7\ 000 = \dots\dots\dots$  ( 5 247 *or* 70 425 *or* 7 425 )
- c** 70 010 comes right after ..... ( 79 999 *or* 70 099 *or* 70 009 )
- d** .....comes right before 2 000 ( 1 999 *or* 2 001 *or* 1 099 )
- e** 20 thousand + 75 tens = .....( 2 075 *or* 20 075 *or* 20 750 )
- f** 60 hundreds = ..... ( 60 000 *or* 6 000 *or* 600000 )
- g** 8 000 tens = .....hundreds ( 800 *or* 8 000 *or* 80 000 )
- h** 300 000 = .....hundreds ( 30 *or* 300 *or* 3 000 )
- i** The largest 5 - different - digit number is .....  
( 98 765 *or* 99 999 *or* 10 234 )
- j** The smallest 6 - different - digit number is .....  
( 100 000 *or* 123 456 *or* 102 345 )
- k** The largest 5 - same - digit number is .....  
( 99 999 *or* 98 756 *or* 9 999 )
- l** The smallest 4 - same - digit number is .....  
( 1 000 *or* 11 111 *or* 1 111 )
- m** The value of the digit 3 in the numbr 53 889 is .....  
( 3 000 *or* 300 *or* 30 )
- n** The value of the digit 8 in the number 877 624 is .....  
( 800 000 *or* 8 000 *or* 800 )
- o** The place-value of the digit 9 in the number 9 247 is .....  
( Hundreds *or* Thousands *or* Ten-thousands )



**2** Complete the following :

- a** Two hundred five thousand, six hundred and eleven = .....  
( Standard form )
- b** 700 608 ( Word form ) : .....
- c**  $700\ 000 + 70\ 000 + 5\ 000 + 800 + 50 + 3 = \dots\dots\dots$
- d** 998 thousand + 6 ones + 5 tens + 7 hundreds = .....
- e**  $70 + 0 + 0 + 4 = \dots\dots\dots$
- f**  $77\ 856 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots$
- g**  $552\ 159 = \dots$  tens + ..... thousands + ... ones + ... hundreds
- h** The number that comes right after 362 999 is .....
- i** The number 70 250 comes right after .....
- j** The number ..... comes right after 99 999.
- k** The number that comes right before 700 000 is .....
- l** The number 31 560 comes right before .....
- m** The number ..... comes right before 105 200.
- n** The place value of the digit 5 in the number 254 269  
is .....
- o** The value of the digit 7 in the number 79 159 is .....
- p** The largest 6-digit number is .....
- q** The smallest 6-digit number is .....
- r** The largest 5-digit number is .....
- s** The smallest 5-digit number is .....
- t** The largest and the smallest number formed from the  
digits ( 7 , 2 , 0 , 6 and 3 ) are ..... and .....

### 3 Complete the following table :

	The Number	The value of the encircled digit	The place-value of the encircled digit
a	455 369		
b	362 512		
c	280 239		
d	696 274		
e	51 780		

### 4 Complete using $<$ , $=$ or $>$ :

a 345 123  600 201

d 99 999  100 010

b 788 250  788 520

e 5 628  5 268

c 441 002  441 020

f 39 020  39 200

g 5 tens + 7 thousands + 4 hundreds  7 405

h Twenty thousand and twenty  2 020

i 500 000 + 50 000 + 500 + 5  555 005

j 3600 + 36  360 036

j An hour and a quarter  95 minutes

k 2 hours and 25 minutes  150 minutes



- 5** Arrange each group of the following numbers in an ascending order and in a descending order :

**a** 32 023 , 98 123 , 75 023 , 54 987 , 20 368

The ascending order :

..... , ..... , ..... , ..... , .....

The descending order :

..... , ..... , ..... , ..... , .....

**b** 500 368 , 500 638 , 500 863 , 500 386 , 500 683

The ascending order :

..... , ..... , ..... , ..... , .....

The descending order :

..... , ..... , ..... , ..... , .....

- 6** A number has 5 Thousands, 7 Hundreds, 6 Tens, and 4 Ones. What number is it?

.....

- 7** Amir's family is saving to buy a new TV. The TV costs 5 940 LE on sale. They have saved 4 210 LE so far. How much more money do they need to buy the TV?

.....

.....

- 8** The library can hold 2,475 books, but 525 books are out on loan and 137 books are missing. How many books are there in the library right now?

.....

.....

## First Choose the correct answer

- a The smallest 6-different -digit number is = .....  
( 100 000 or 123456 or 102345 )
- b Three hundred three thousand , three hundred and three  
= .....  
( 303 303 or 300 033 or 330 303 )
- c the value of the digit 0 in the number 350 567 is .....  
( 10 000 or 1000 or 0 )
- d the number that comes right after 209 999 is .....  
( 300 000 or 209 998 or 210 000 )
- e 25 thousands + 6 ones + 7 hundreds + 9 tens = .....  
( 25 679 or 25 796 or 25 769 )

## Second Complete the following

- a The greatest 6-digit number formed from the digits  
( 3 , 5 and 7 ) is = .....
- b  $250\,250 = 250 + \dots$
- c The place value of 0 in the number 405 612 is .....
- d  $8 \text{ tens} + 502 \text{ thousands} + 7 \text{ ones} + 2 \text{ hundreds} = \dots$
- e  $(8 \times \dots) + (8 \times \dots) = 32 + 56 = \dots$

## Third Answer the following

- a Find the result :  
(1)  $456 + 643 = \dots$  (2)  $4\,020 - 129 = \dots$
- b Arrange the following numbers in an ascending order .  
10 000 , 999 , 50 000 , 200 , 6 000  
..... , ..... , ..... , ..... , .....
- c Mona has LE 545 and Nada has LE 235 .  
How much money do they have altogether ?  
The have = ..... + ..... = LE .....



LESSON 4

# Elapsed Time

## REMEMBER

1 day = 24 hours

1 hour = 60 minutes

$\frac{1}{2}$  day = 12 hours

$\frac{1}{2}$  hour = 30 minutes

$\frac{1}{3}$  day = 8 hours

$\frac{1}{3}$  hour = 20 minutes

$\frac{1}{4}$  day = 6 hours

$\frac{1}{4}$  hour = 15 minutes



03:10



06:10



09:10

3 hours ago      -3      right Now      +3      After 3 hours



04:40



05:00

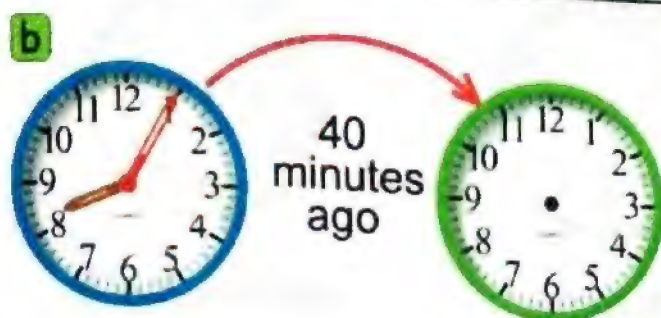
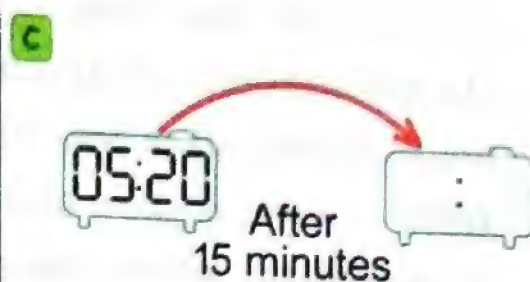


05:20

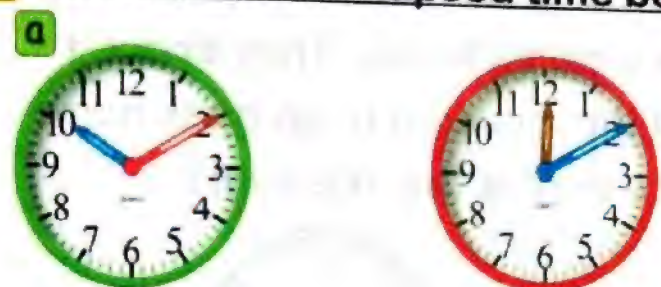
20 minutes ago      -20      right Now      +20      After 20 minutes



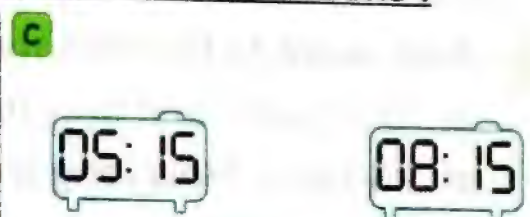
**1** Draw the analog clock hands or write the time on digital clock to show the time :



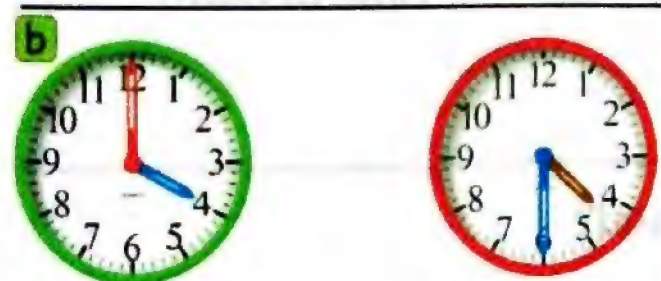
**2** Calculate the elapsed time between the two clocks :



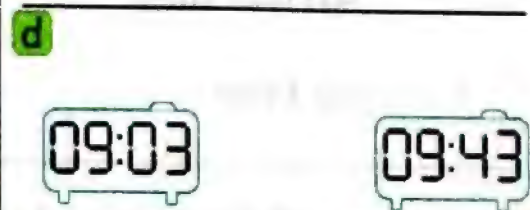
Elapsed time : .....



Elapsed time : .....



Elapsed time : .....



Elapsed time : .....



- 3** Gamal planned out his day on a piece of paper. He plans to wake up at **7:15** a.m. and leave for school at **8:30** a.m. It takes him **15** minutes to walk to and from school. He will spend six hours at school and leave for home immediately after school.

What will the analog clocks in his house look like when he wakes up, leaves for school, and arrives back at home?



wakes up



leaves  
for school



arrives back  
at home

- 4** Amir went to the museum with his family. They arrived at 10:00 a.m. and they left the museum to go back home at 3:30 p.m. How long were they at the museum?



Arrival time



Time to leave

Elapsed time : .....

- 5** How much time has elapsed?

**a** 6:30 a.m. → 7:00 a.m. ....

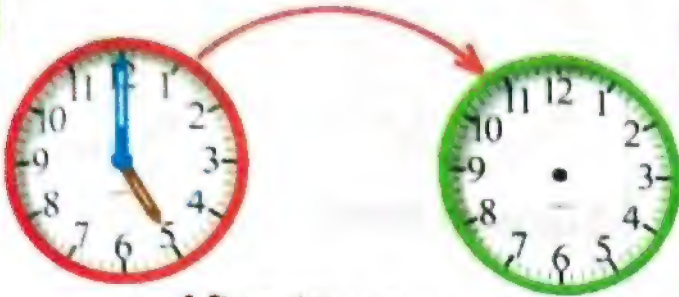
**b** 4:30 p.m. → 9:00 p.m. ....

**c** 11:15 a.m. → 5:30 p.m. ....



**1** Draw the analog clock hands or write the time on digital clock to show the time :

**a**



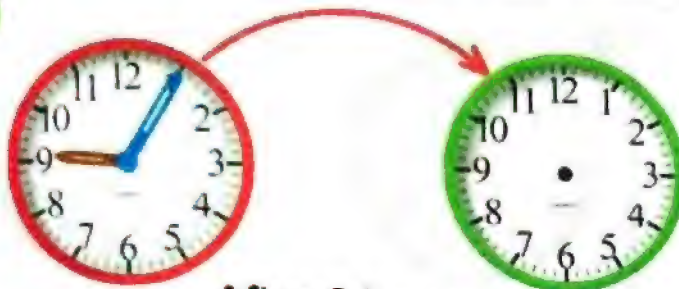
After 40 minutes

**b**



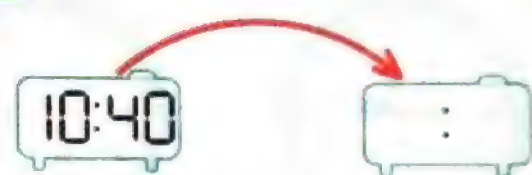
After 50 minutes

**c**



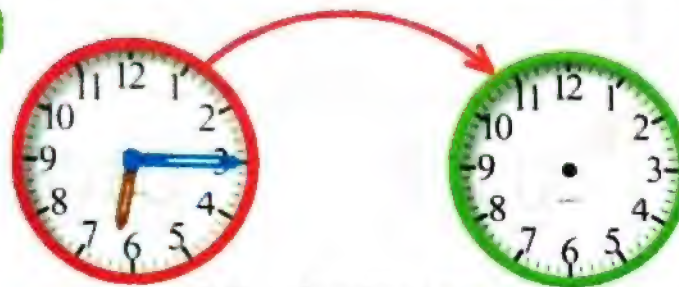
After 6 hours

**d**



20 minutes ago

**e**



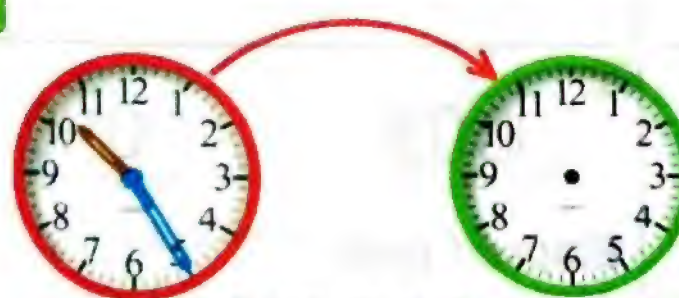
30 minutes ago

**f**



5 hours ago

**g**



3 hours ago

**h**



After 6 hours

**i**



After 2 hours

**j**



After 45 minutes



**2** Calculate the elapsed time between the two clocks :



Elapsed time : .....



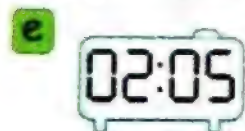
Elapsed time : .....



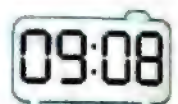
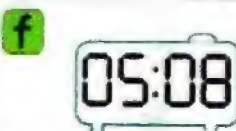
Elapsed time : .....



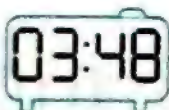
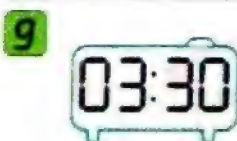
Elapsed time : .....



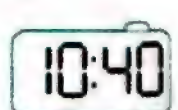
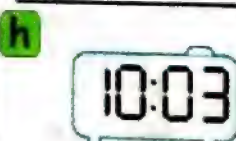
Elapsed time : .....



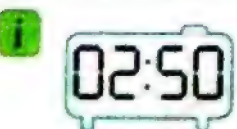
Elapsed time : .....



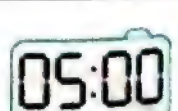
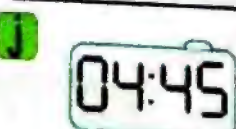
Elapsed time : .....



Elapsed time : .....



Elapsed time : .....



Elapsed time : .....



- 3** Ziad woke up at 7:00 a.m. He has to leave at 8:00 a.m. for school. It takes him 20 minutes to eat breakfast, 5 minutes to brush his teeth and hair, and 10 minutes to pack his bag. If he wanted to watch a 30 minute cartoon, would he have enough time before he leaves for school? (Show your work)

- 4** Ameen arrives at school at 7:30 a.m. He leaves school at 3:15 p.m. How long is Ameen at school?



Arrival time



Time to leave

Elapsed time : .....

- 5** Heba spent 3 hours at dance practice. She finished at 6:10 p.m. What time did she start?



started



finished

- 6** Kamal's family took a road trip. They left at 7:30 a.m. and drove until 12:15 p.m., when they stopped for lunch. How many hours were they on the road?



Elapsed time : .....



**7** How much time has elapsed?

- a** 6:30 a.m. → 7:00 a.m. ....
- b** 3:00 a.m. → 4:30 a.m. ....
- c** 5:05 p.m. → 10:05 p.m. ....
- d** 4:10 p.m. → 9:00 p.m. ....
- e** 10:10 a.m. → 7:15 p.m. ....
- f** 11:15 a.m. → 5:30 p.m. ....

**8** Gaber comes home from school and starts his homework. It takes him **22** minutes to do his math, **20** minutes to read, and he has a science experiment that takes **18** minutes. Hala has the same homework. She takes **15** minutes to do her math, reads for **20** minutes, and then the science experiment only takes her **11** minutes.

- a** How long does it take Gaber to finish all his homework?  
.....
- b** How long does it take Hala to finish all of her homework?  
.....
- c** How much longer did it take Gaber to do his homework?  
.....

**9** Kamal had football practice after school. He left school at **3:30** p.m. He walked for **15** minutes to the field, practiced for **an hour and a half**, and then walked **20** minutes home. What time did he get home?  
.....



## First Choose the correct answer

- a The smallest 5 - different digit number is .....  
( 98 765 or 12 345 or 10 234 )
- b 100 Thousands = ..... Hundreds ( 10 or 100 or 1000 )
- c  $200 + 0 + 0 + 5 =$  ..... ( 200 005 or 205 or 25 )
- d  $4 + 4 + 4 = 2 \times$  ..... ( 3 or 4 or 6 )
- e The value of the digit 9 in the number 49 123 is .....  
( 9 or 900 or 9 000 )

## Second Complete the following

- a  $8 \times 50 =$  .....
- b The elapsed time from 7:05 to 9:05 is .....
- c The number ..... comes right before 70 100.
- d If  $4 \times 15 = 60$ , Then  $60 \div \dots = 4$
- e  $\frac{2}{3} = \frac{\dots}{6} = \frac{\dots}{9}$

## Third Answer the following

- a Look at the analog clocks. Write the time below and then determine how much time has elapsed between the two times.



The elapsed time .....

- b Arrange the following numbers in a descending order :  
42 159 , 42 951 , 42 519 , 52 915 , 42 195

The order = ..... , ..... , ..... , ..... , .....



**Example**

The following numbers are the marks from a test taken by a class of 24 students:

16 , 14 , 17 , 11 , 14 , 11 , 17 , 17  
12 , 15 , 18 , 18 , 11 , 16 , 15 , 14  
18 , 15 , 13 , 16 , 17 , 15 , 13 , 17

Represent these data by : Bar graph & Line plot graph

**To represent these marks graphically**

A frequency table is created.

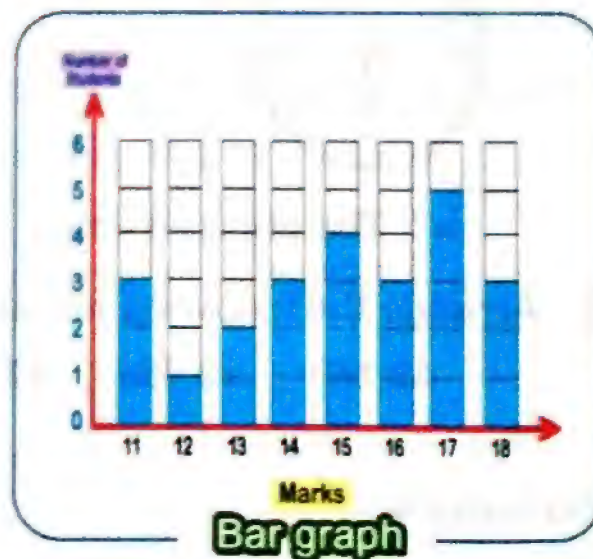
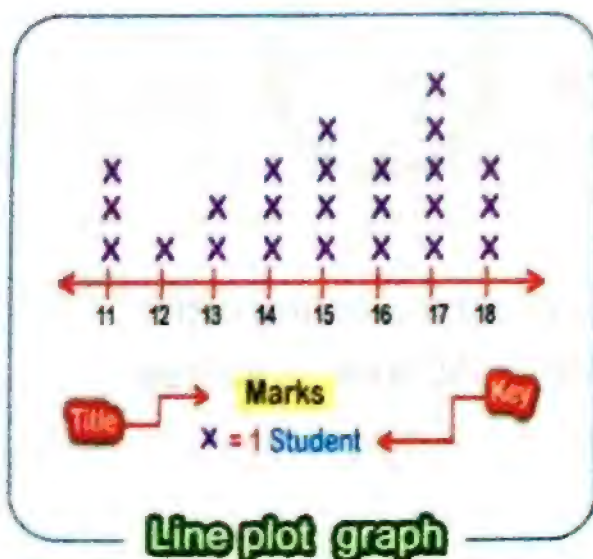
We define the lowest and largest mark and write the number of repetitions of these marks in a table ( as shown ) :

The lowest value = 11

The largest value = 18

Marks	11	12	13	14	15	16	17	18
Frequency Number of Students	3	1	2	3	4	3	5	3

Then the marks are represented in one of two ways



- 1** One of the Primary 3 classes grew bean plants for a science experiment. Students measured their plants to the nearest  $\frac{1}{2}$  cm and recorded the heights of their plants below. Their data is not in order.

Height of Plants

1 cm	$1\frac{1}{2}$ cm	$2\frac{1}{2}$ cm	$3\frac{1}{2}$ cm	$3\frac{1}{2}$ cm	$3\frac{1}{2}$ cm
$1\frac{1}{2}$ cm	2 cm	$1\frac{1}{2}$ cm	3 cm	4 cm	2 cm

- a** Use the data to complete the line plot below.

Title : .....



Key : x = .....

- b** How many bean plants are at least 2 cm centimeters tall?  
.....
- c** How many bean plants are taller than 3 cm?  
.....
- d** What is the most frequent measurement?  
.....
- e** How many plants measured this height?  
.....
- f** Sara says that most of the bean plants were taller than 3 cm. Is she right? Explain  
.....  
.....



- 2** You rolled the dice 30 times and scored as following :

1	6	4	2	5	3	2	1	5	5	2	5	3	2	1
3	6	6	6	1	1	4	2	3	5	6	1	1	4	2

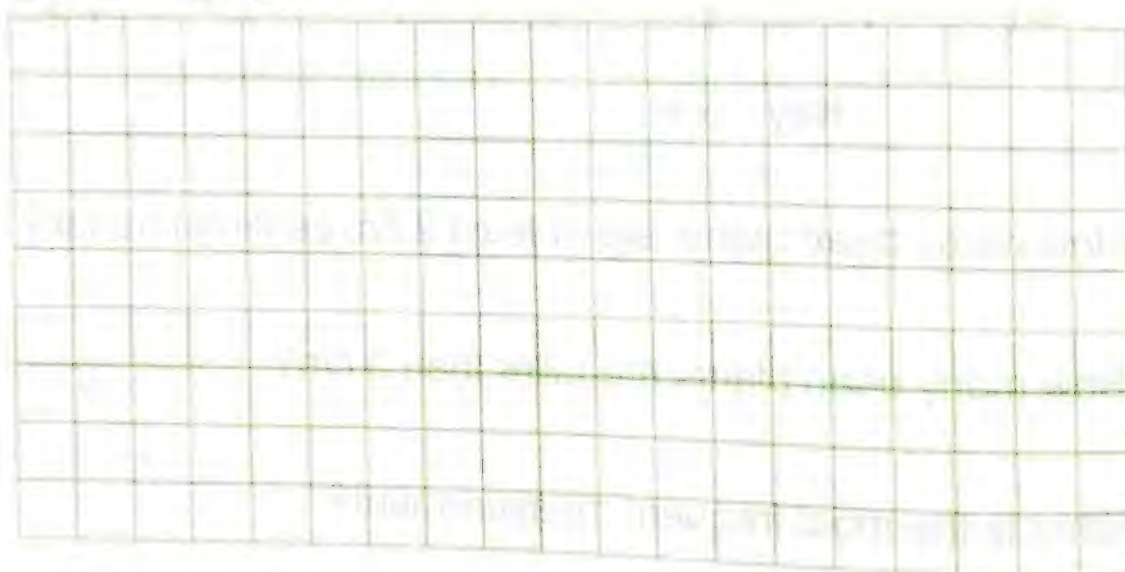
- a** Use the data in the table to make a line plot.  
Be sure to add a title and a key.

title .....



key. **X** = .....

- b** Using the grid paper below, create a bar graph to display the data collected. Be sure to label the horizontal and vertical axes and to give your graph a title.



- c** Which number did you roll the most? .....
- d** Which number did you roll the least? .....
- e** How many times did you roll an even number? .....
- f** What is the difference between the total number of even number rolls and the total number of odd number rolls?  
.....

- 1** The following data shows the number of students in each of the school's 20 classes,

45 , 40 , 41 , 45 , 40 , 41 , 41 , 43 , 45 , 45  
44 , 45 , 43 , 43 , 40 , 43 , 45 , 41 , 44 , 41

- a** Complete the following table :

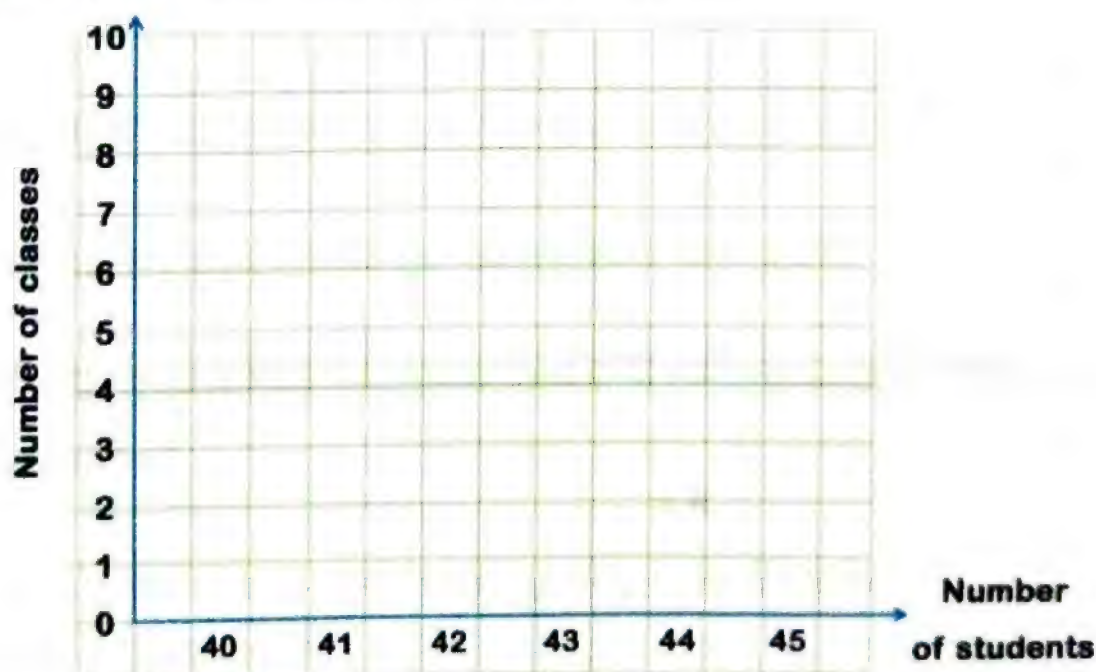
The number of students	40	41	42	43	44	45
The number classes						
Frequency						

- b** Creat a line plot using these data :



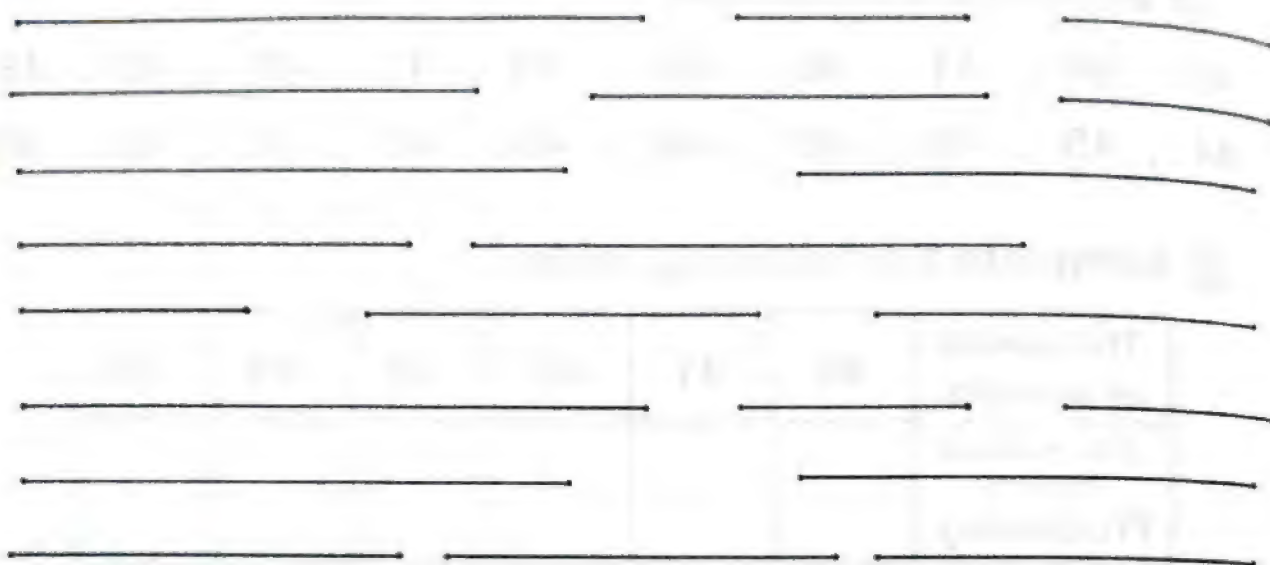
$x = \dots\dots\dots$

- c** Complete the following bar graph .





- 2** Use your ruler to measure the length of the following line segments , then answer :



- a** Complete the following table :

The length	.....	.....	.....	.....	.....	.....
the number of line segments	.....	.....	.....	.....	.....	.....

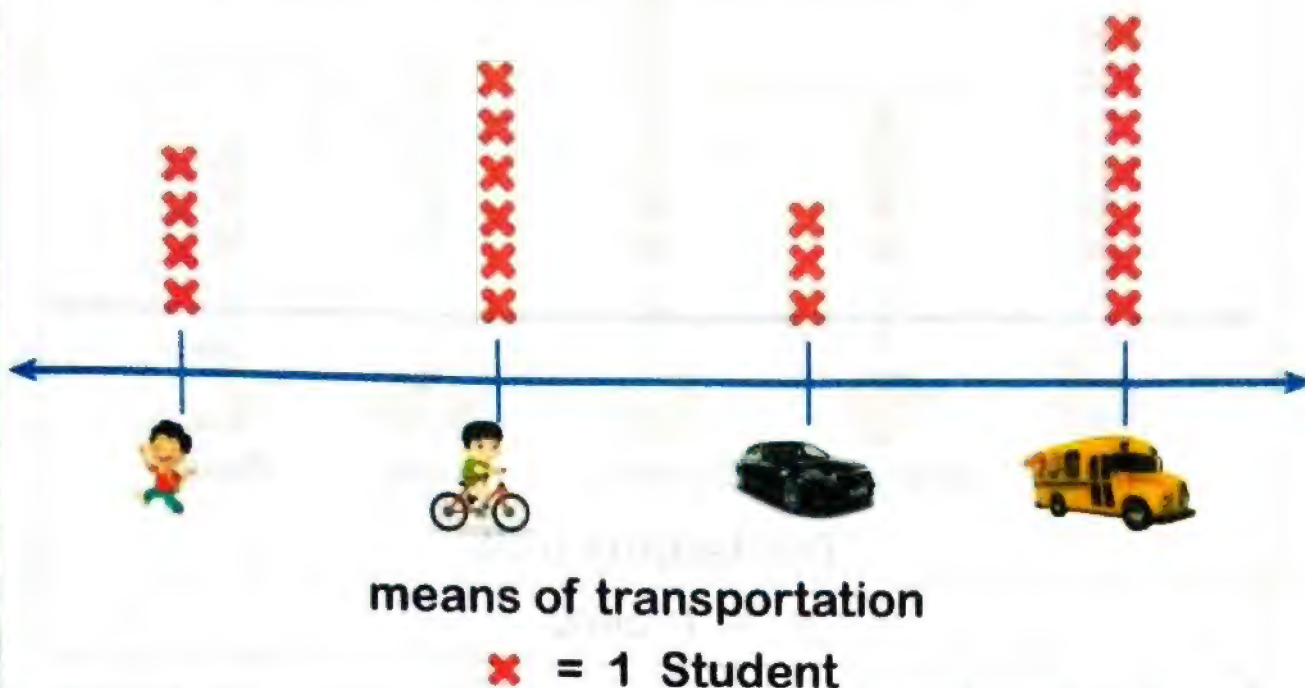
- b** Creat a line plot using these data.

.....



**x** = .....

**3** The following line plot represents the methods used by 20 students to reach school

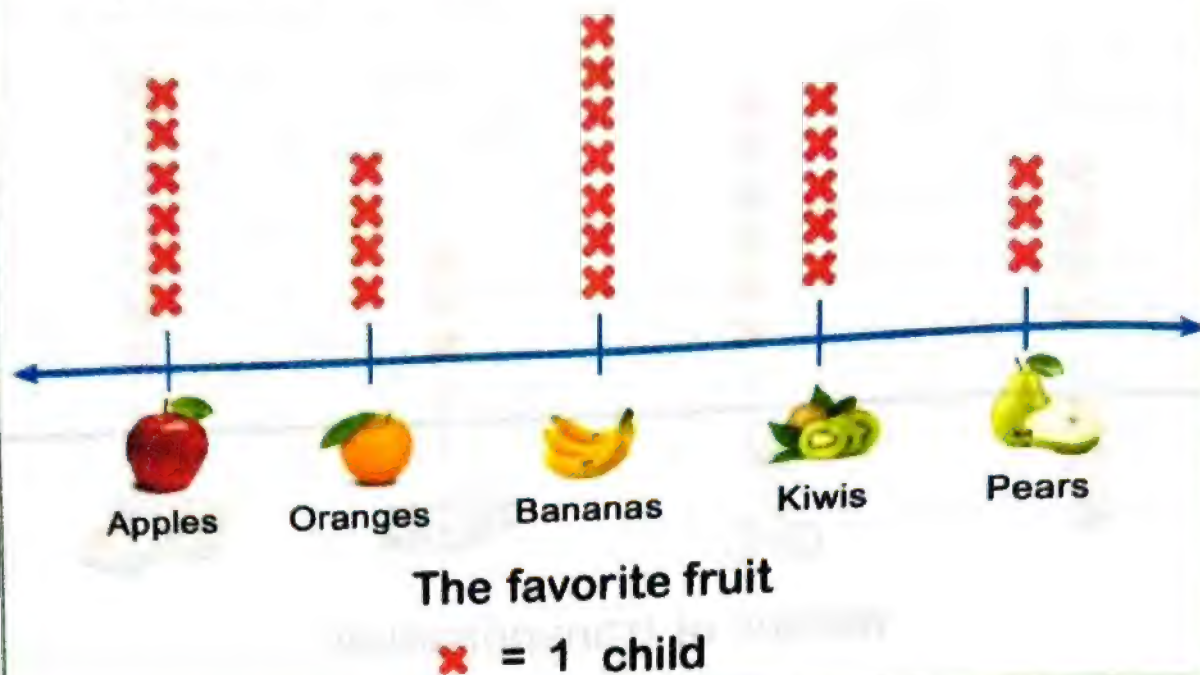


Answer the following :






- How many students go to school by **bus**? .....
- How many students go to school by **car**? .....
- How many students go to school by **bicycle** ? .....
- How many students go to school on **foot**? .....
- What is the **most** popular means of transportation for students? .....
- How many **more** students go by **bus** to school than a **bicycle** ? .....



- 4 The following line plot shows the favorite fruit types for 25 children :



Complete the following table :

Favorite Fruit	 Apples	 Oranges	 Bananas	 Kiwis	 Pears
Number of children					

Answer the questions:

- How many children liked oranges ? .....
- How many more children liked apples than pears ?  
.....
- How many children all together liked kiwis , apples and oranges ?  
.....
- Which fruit is liked the most ? .....
- Which fruit is liked the least ? .....

- 5 You rolled the dice 20 times and scored as following :

1	4	2	5	3	5	2	2	2	1
3	6	6	1	1	3	5	6	4	2

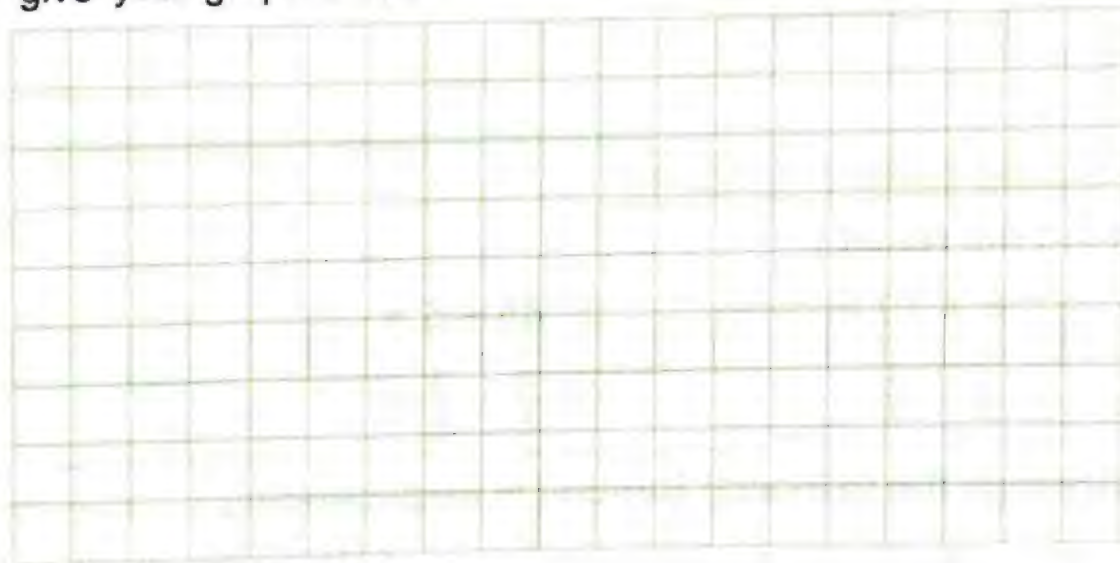
- a Use the data in the table to make a line plot.  
Be sure to add a title and a key.

title .....



key. X = .....

- b Using the grid paper below, create a bar graph to display the data collected. Be sure to label the horizontal and vertical axes and to give your graph a title.



- c Which number did you roll the most? .....
- d Which number did you roll the least? .....
- e How many times did you roll an even number? .....
- f What is the difference between the total number of even number rolls and the total number of odd number rolls?



**First** Choose the correct answer

- a  $7 \times (4 + 5) = \dots\dots\dots$  (  $7 \times 20$  or  $7 \times 9$  or  $7 \times 4 \times 5$  )  
 b  $40\,000 + 500 + 3 = \dots\dots\dots$  (  $40\,503$  or  $45\,003$  or  $40\,053$  )  
 c  $4 \times 8 = 30 + \dots\dots\dots$  (  $32$  or  $8$  or  $2$  )  
 d The smallest 6-different-digit number is  $\dots\dots\dots$   
 (  $100\,000$  or  $102\,345$  or  $123\,456$  )  
 e  $\frac{2}{6} \square \frac{5}{6}$  (  $<$  or  $=$  or  $>$  )

**Second** Complete the following

- a The place value of the digit 0 in the number 70 258 is  $\dots\dots\dots$   
 b  $9 \times 50 = \dots\dots \times 10$   
 c The elapsed time from 5 : 15 to 6 : 00 is  $\dots\dots\dots$   
 d  $5 \times (4 \times \dots\dots) = (\dots\dots \times 4) \times 8$   
 e  $\frac{4}{8} = \frac{2}{\dots\dots}$

**Third** Answer the following

- a Find the result :

①  $8 \times 70 = \dots\dots\dots$       ②  $45 \div 5 = \dots\dots\dots$   
 ③  $\frac{2}{7} + \frac{4}{7} = \dots\dots\dots$       ④  $\frac{4}{5} - \frac{2}{5} = \dots\dots\dots$

- b Arrange the following fraction in an ascending :

$\frac{1}{2}$  ,  $\frac{5}{6}$  ,  $\frac{1}{6}$  ,  $\frac{2}{3}$

( Using the number line )

The order :

$\dots\dots\dots$  ,  $\dots\dots\dots$  ,  $\dots\dots\dots$  ,  $\dots\dots\dots$



- c Find the area and the perimeter of the opposite rectangle .

The area =  $\dots\dots\dots$

The perimeter =  $\dots\dots\dots$



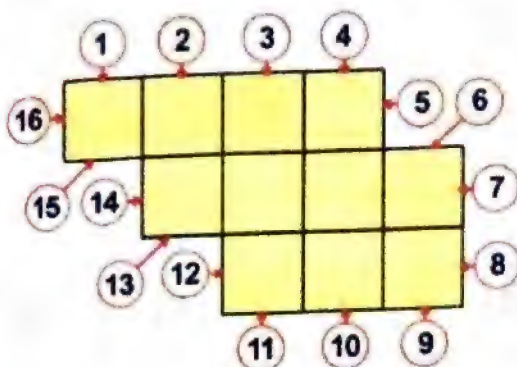


# Perimeter and area of irregular shapes

## LESSON 6

### The Perimeter

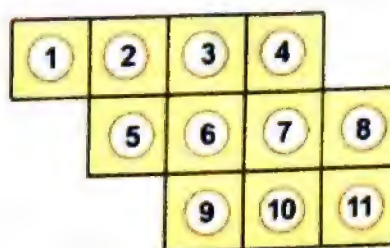
is the sum of the lengths of the outer lines surrounding the shape



The perimeter  
16 Units

### The Area

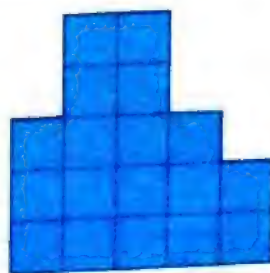
is the number of square units inside the shape



The area  
11 Square units

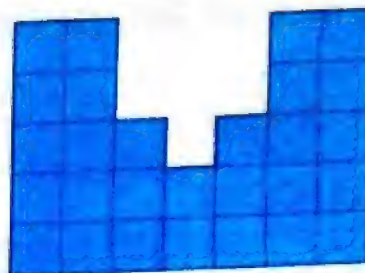
1 Find the area and the perimeter of each shape :

a



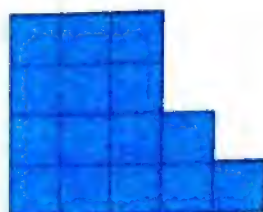
- ① The area =      square unit
- ② The perimeter =      liner unit

b



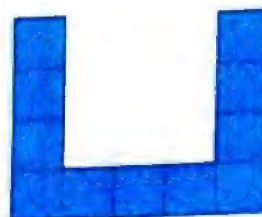
- ① The area =      square unit
- ② The perimeter =      liner unit

c



- ① The area =      square unit
- ② The perimeter =      liner unit

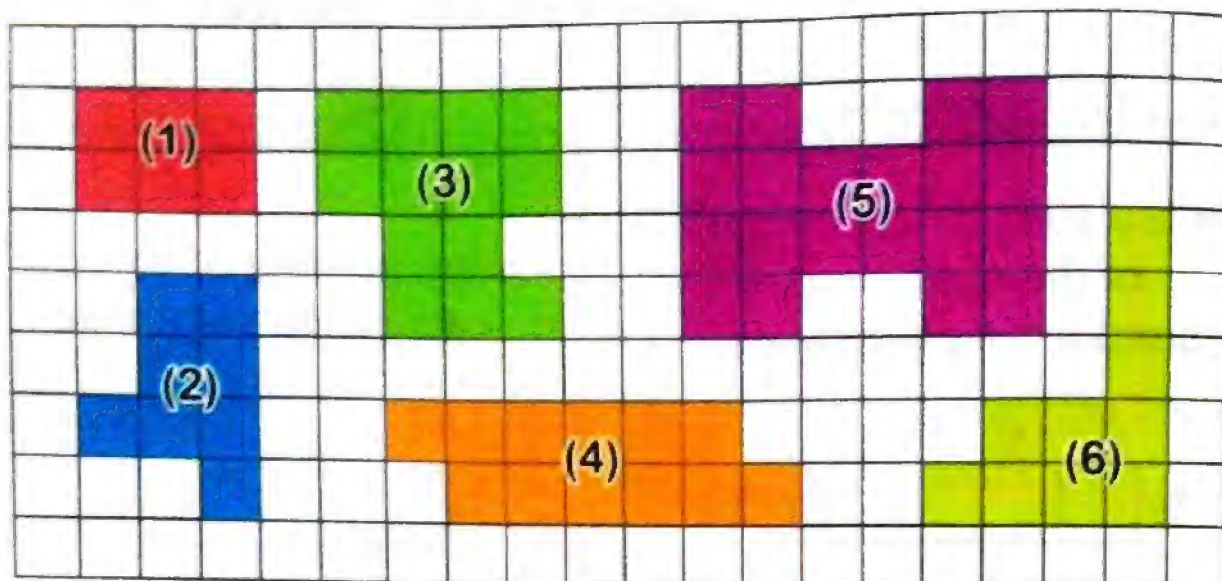
d



- ① The area =      square unit
- ② The perimeter =      liner unit



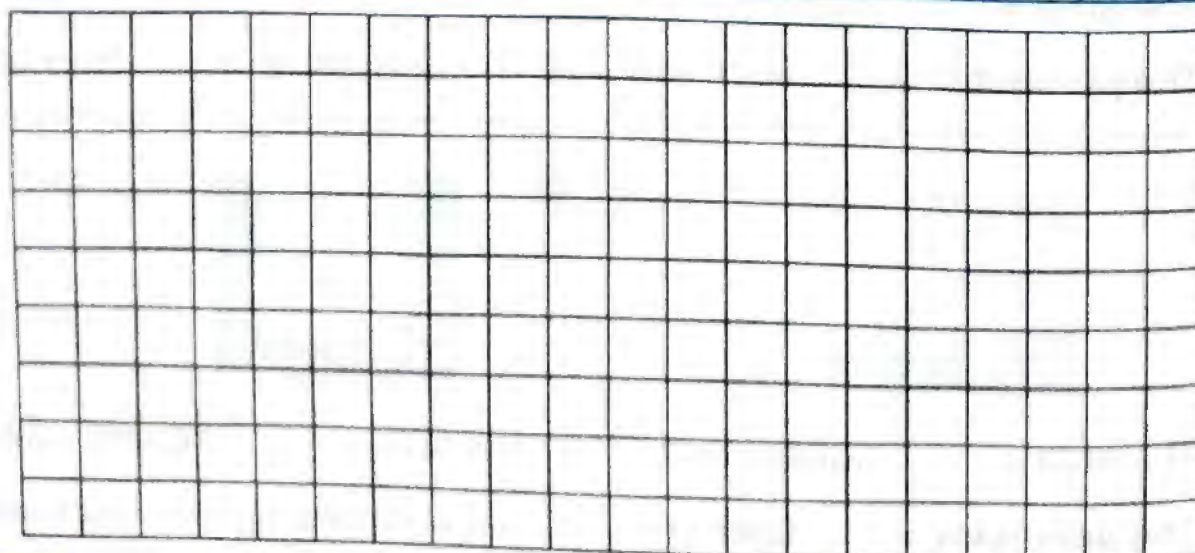
**2** Find the area and the perimeter of the following shapes :



The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	.....	.....	.....	.....	.....	.....
The area	.....	.....	.....	.....	.....	.....

**3** Using the given areas, draw irregular shapes, then find the perimeter of each

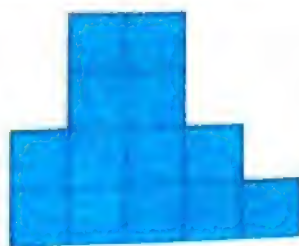
The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	.....	.....	.....	.....	.....	.....
The area	5	8	12	10	6	9





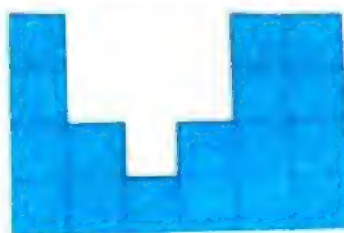
**1** Find the area and the perimeter of each shape :

**a**



The area =            square unit  
The perimeter =            liner unit

**b**



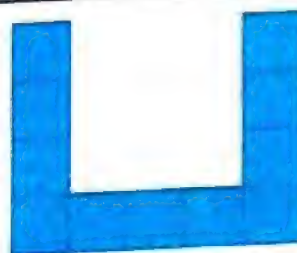
The area =            square unit  
The perimeter =            liner unit

**c**



The area =            square unit  
The perimeter =            liner unit

**d**



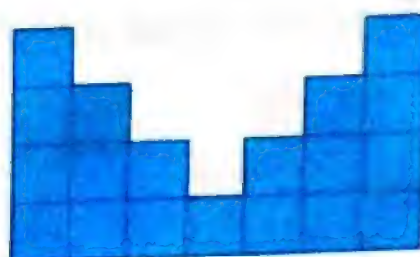
The area =            square unit  
The perimeter =            liner unit

**e**



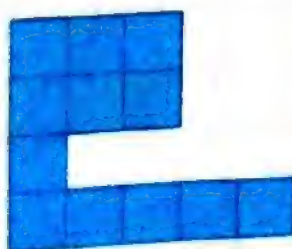
The area =            square unit  
The perimeter =            liner unit

**f**



The area =            square unit  
The perimeter =            liner unit

**g**



The area =            square unit  
The perimeter =            liner unit

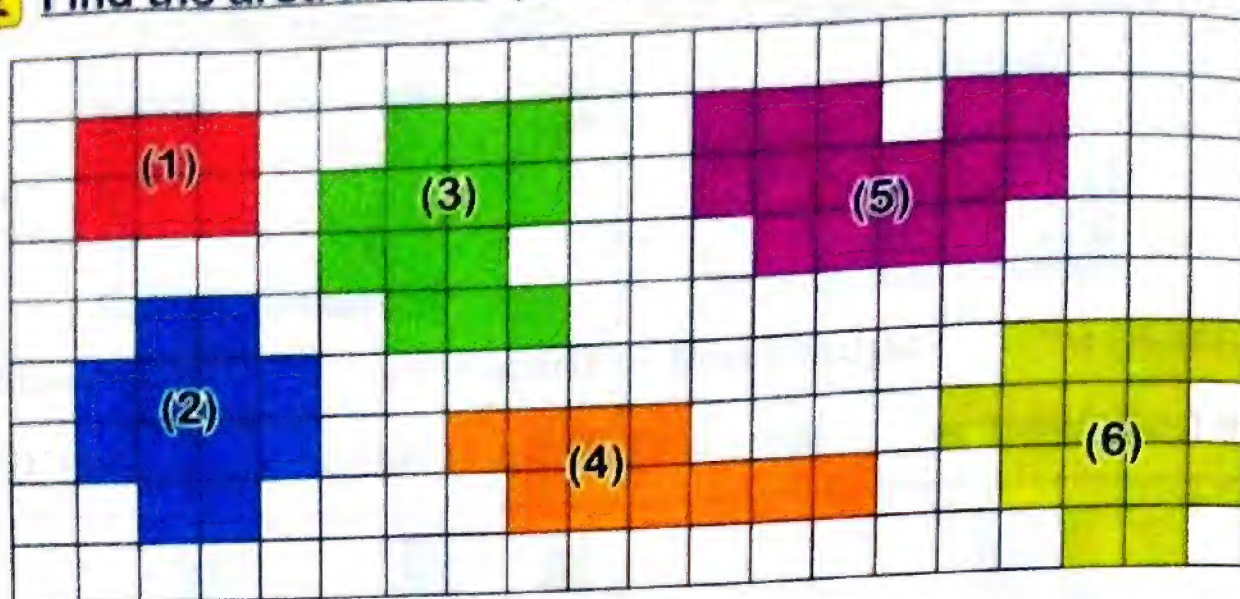
**h**



The area =            square unit  
The perimeter =            liner unit

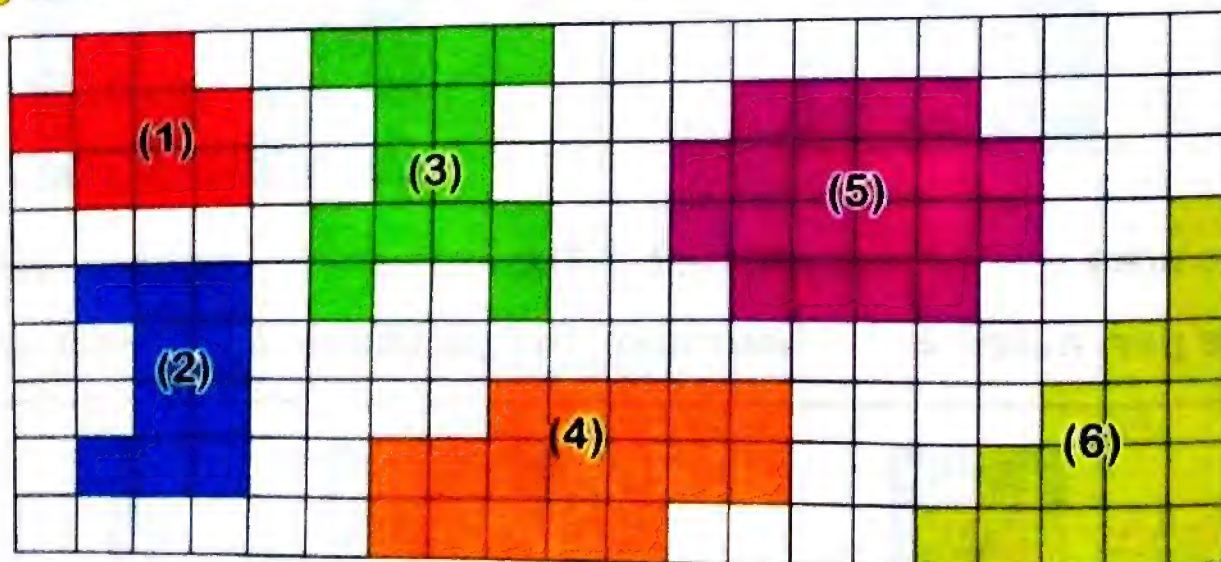


**2** Find the area and the perimeter of the following shapes :



The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	.....	.....	.....	.....	.....	.....
The area	.....	.....	.....	.....	.....	.....

**3** Find the area and the perimeter of the following shapes :

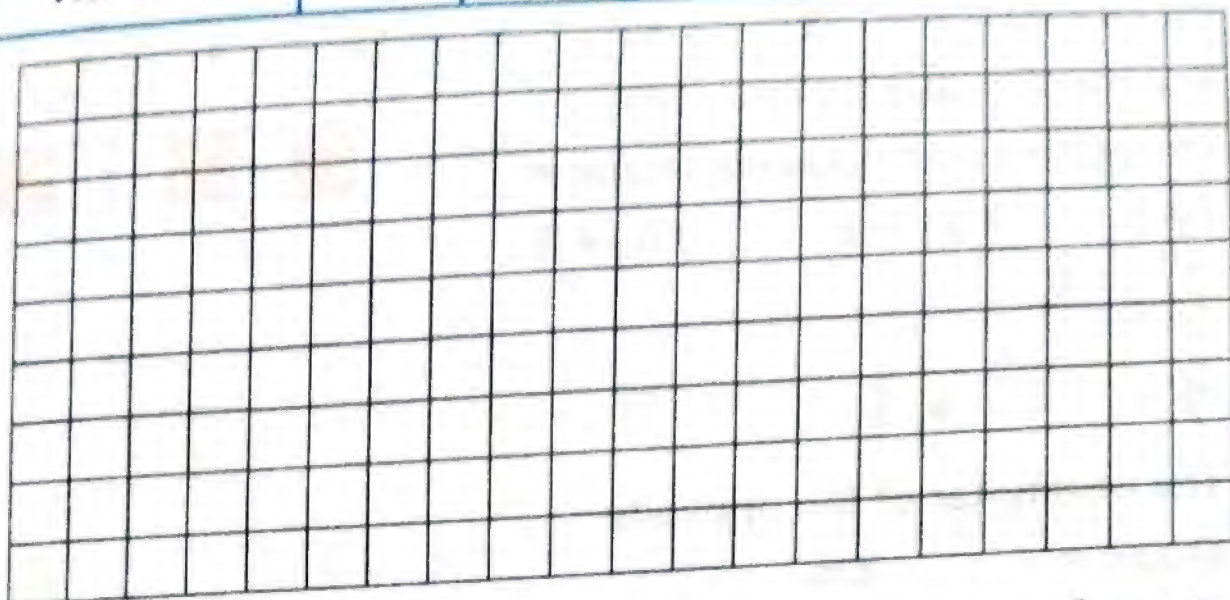


The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	.....	.....	.....	.....	.....	.....
The area	.....	.....	.....	.....	.....	.....



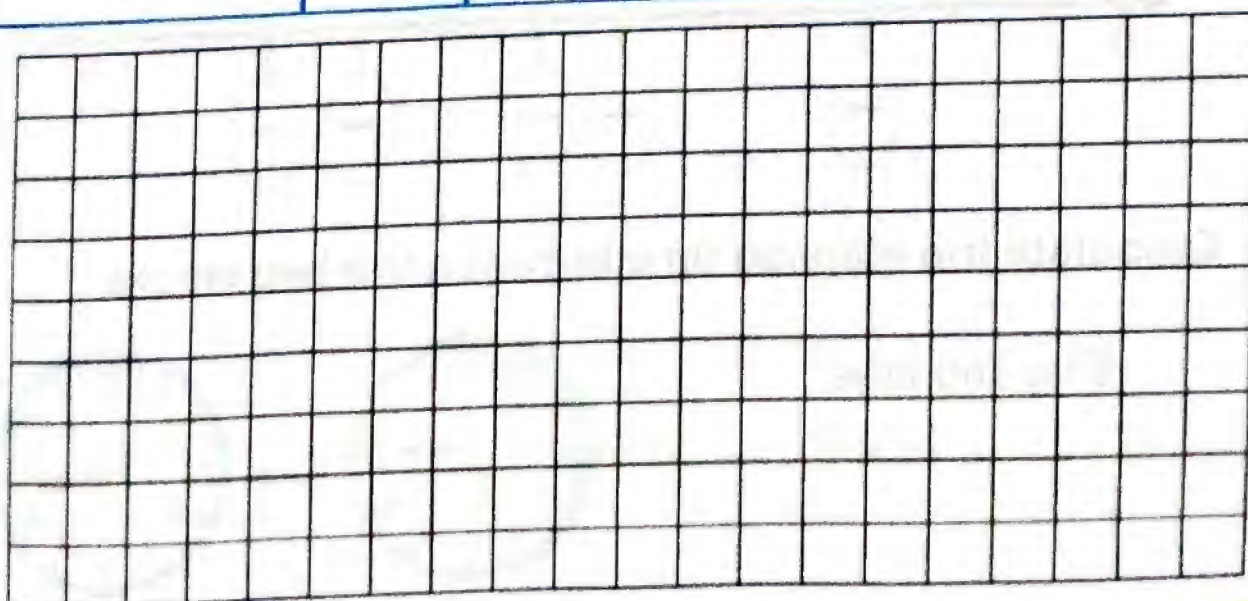
- 4** Using the given areas, draw irregular shapes, then find the perimeter of each

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	.....	.....	.....	.....	.....	.....
The area	10	5	12	7	9	10




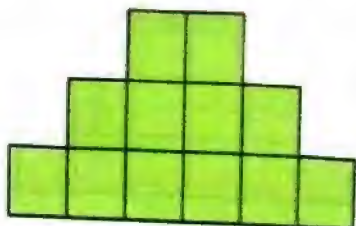
- 5** Using the given perimeters, draw irregular shapes, then find the area of each

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	12	18	20	8	24	16
The area	.....	.....	.....	.....	.....	.....



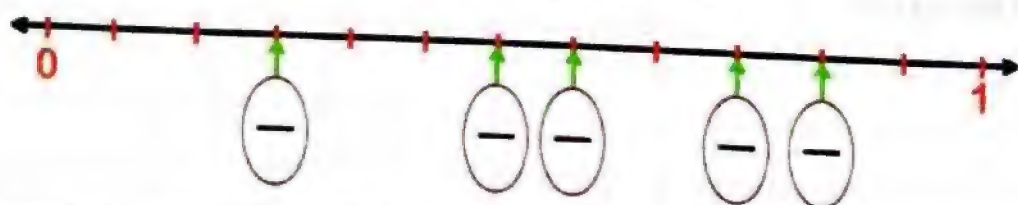


**First Complete the following**

- The place value of the digit 6 in the number 267 400 is .....
- The largest number that can be formed from the digits ( 5 , 7 , 2 , 0 and 3 ) is .....
- $70\,000 + 50 + 4\,000 + 2 =$  .....
- $7 \times (4 + 9) = ( \dots \times \dots ) + ( \dots \times \dots ) = \dots + \dots = \dots$
- The fraction that represents the shaded part opposite shape = ..... 
- $7 \times ( \dots \times 3 ) = ( \dots \times 5 ) \times 3$
- $\frac{2}{3} = \frac{8}{\dots}$
- $\frac{2}{7} + \dots = \frac{5}{7}$
- The perimeter of the opposite shape = ..... cm 
- $8 \times 70 = 8 \times 7 \times \dots = \dots \times 10 = \dots$

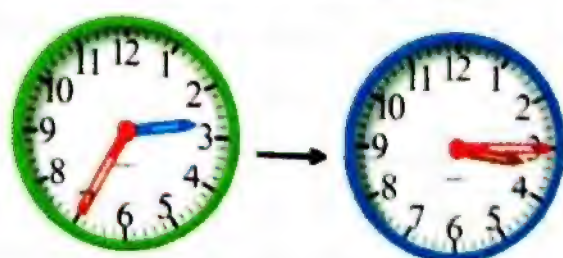
**Second Answer the following**

- Place the following fractions in their correct places on the number line  $\frac{3}{4}, \frac{1}{2}, \frac{5}{6}, \frac{2}{3}, \frac{2}{8}$



- Calculate the elapsed time between the two clocks :

Elapsed time :



- c The mother distributed 27 sweets equally to her three children.  
How many pieces of candy each son takes?

.....  
.....

- d Cupboard with 3 shelves. Each shelf contains 2 boxes, and each box contains 4 books.  
How many books are in this Cupboard ?



.....  
.....

- e Two pieces of fabric, one of which is divided into 9 equal parts.  
Ahmed used 3 parts to make a jacket and the other piece divided  
into 6 equal parts

What is the fraction of the other piece of cloth that Ahmed  
used to make the same jacket?

.....

.....

- f The perimeter of a rectangle is 22 cm , and its length 7 cm.  
Find the width of the rectangle and its area .

.....  
.....  
.....

- g Arrange the following numbers in a descending order :

45 102 , 45 201 , 45 012 , 45 210 , 45 120

..... , ..... , ..... , ..... , .....





*Maths*

**BOOK 3 - PART 2**

**General Exercises**  
**Models**  
**Guide Answers**



**Final revesion  
and  
Models**



## First Choose the correct answer

- |   |  |
|---|--|
| a $6 + 6 + 6 + 6 + 6 = \dots\dots\dots$                         | ( $6 \times 6$ or $6 + 5$ or $6 \times 5$ )  |
| b $4 + 4 + 4 + 4 + 4 = \dots\dots\dots$                         | ( $4 \times 4$ or $2 \times 10$ or $4 + 5$ ) |
| c $8 \times 2 = \dots\dots\dots$                                | ( $4 \times 4$ or $8 + 2$ or $4 \times 6$ )  |
| d $9 \times 4 = 30 + \dots\dots\dots$                           | ( $6$ or $36$ or $9$ )                       |
| e $42 \div 6 = \dots\dots\dots$                                 | ( $8$ or $7$ or $6$ )                        |
| f $8 \times 6 = 6 \times \dots\dots\dots$                       | ( $6$ or $7$ or $8$ )                        |
| g $5 \times \dots\dots\dots = 4 \times 10$                      | ( $8$ or $7$ or $6$ )                        |
| h $\dots\dots\dots = 4 \times 6$                                | ( $16$ or $24$ or $32$ )                     |
| i $7 \times 30 = \dots\dots\dots \times 10$                     | ( $21$ or $10$ or $7$ )                      |
| j $6 \times (\dots\dots\dots \times 7) = (6 \times 5) \times 7$ | ( $6$ or $5$ or $7$ )                        |
| k $8 \times 15 = (8 \times 10) + (8 \times \dots\dots\dots)$    | ( $5$ or $6$ or $7$ )                        |
| l $9 \times \dots\dots\dots = (9 \times 5) + (9 \times 6)$      | ( $30$ or $11$ or $9$ )                      |
| m If $7 \times 12 = 84$ , then $\dots\dots\dots \div 12 = 7$    | ( $7$ or $12$ or $84$ )                      |

## Second Complete the following

- |   |                                   |                                   |
|---|-----------------------------------|-----------------------------------|
| a $9 \times 3 = \dots\dots\dots$  | b $8 \times \dots\dots\dots = 32$ | c $\dots\dots\dots \times 6 = 42$ |
| d $56 \div 7 = \dots\dots\dots$   | e $\dots\dots\dots \div 3 = 5$    | f $36 \div \dots\dots\dots = 9$   |
| g $6 \times 3 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots$  |                                   |                                   |
| h $8 \times 2 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots$                                  |                                   |                                   |
| i $7 \times (5 \times \dots\dots\dots) = (\dots\dots\dots \times 5) \times 9$   |                                   |                                   |
| j $6 \times 15 = (\dots\dots\dots \times 3) \times 5$   |                                   |                                   |
| k $4 \times (10 + 7) = (4 \times \dots\dots\dots) + (4 \times 7) = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$ |                                   |                                   |
| l $\dots\dots\dots \times (7 + \dots\dots\dots) = 9 \times 13$  |                                   |                                   |
| m If $8 \times 9 = 72$ , then $72 \div 8 = \dots\dots\dots$ and $72 \div 9 = \dots\dots\dots$                           |                                   |                                   |

**Third Answer the following**

**1** Use the associative property to find :

**a**  $5 \times 2 \times 8 = ( \dots \times \dots ) \times \dots = \dots \times \dots = \dots$

**b**  $8 \times 9 \times 1 = \dots \times ( \dots \times \dots ) = \dots \times \dots = \dots$

**c**  $4 \times 5 \times 10 = \dots$

**d**  $6 \times 8 \times 10 = \dots$

**2** Use the distributive property to find :

**a**  $8 \times 9 = ( 8 \times 6 ) + ( 8 \times \dots ) = \dots + \dots = \dots$

**b**  $6 \times 15 = ( \dots \times 10 ) + ( \dots \times \dots ) = \dots + \dots = \dots$

**c**  $\dots \times \dots = ( 7 \times 7 ) + ( 7 \times 6 ) = \dots + \dots = \dots$

**d**  $\dots \times \dots = ( 5 \times \dots ) + ( 5 \times \dots ) = 30 + 40 = \dots$

**3** Use 6 and 3 to complete the fact family below :

**a**  $\dots \times \dots = \dots$       **c**  $\dots \div \dots = \dots$

**b**  $\dots \times \dots = \dots$       **d**  $\dots \div \dots = \dots$



**4** Ahmed has three boxes, each box has 5 bags and each bag has 4 oranges. How many oranges does Ahmed have?

.....  
.....

**5** Ahmed planted two gardens , The first contains 3 rows in each row of 8 orange trees, and the second has 3 rows in each row of 5 orange trees , How many orange trees Ahmed planted?

.....  
.....

**6** Marwa has 24 sweets that she wants to distribute to three children. How many sweets will each child have?

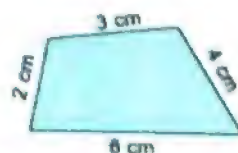
.....  
.....



# GENERAL EXERCISES ON Perimeter & Area

## First Choose the correct answer

- a** The perimeter of a square with side length 6 cm is ..... cm  
( 36 or 12 or 24 )
- b** The perimeter of a rectangle with length 8 cm and width 3 cm  
is ..... cm ( 24 or 22 or 11 )
- c** The side length of a square is 9 cm , then its area = ..... Sq cm  
( 81 or 18 or 36 )
- d** The dimensions of a rectangle are 5 cm and 3 cm then the area  
of the rectangle = ..... Sq cm ( 15 or 16 or 8 )
- e** The area of a square is 49 Sq cm , then the side length of the  
square is ..... cm ( 14 or 7 or 13 )
- f** The perimeter of a square is 24 cm , then the side length of  
the square is ..... cm ( 12 or 8 or 6 )
- g** The area of a rectangle is 36 Sq cm and its length is 9 cm , then  
the width of the rectangle is .....cm ( 4 or 6 or 45 )
- h** The area of a rectangle is 42 Sq cm and its width is 6 cm , then  
the length is ..... cm ( 8 or 15 or 7 )
- i** The perimeter of a rectangle is 24 cm and its length is 8 cm , then  
The width of the rectangle is .....cm ( 3 or 4 or 12 )
- j** The perimeter of the opposite figure is .....  
( 15 or 7 or 9 )
- k** The area of the opposite figure is ..... Sq units  
( 8 or 12 or 36 )
- l** The perimeter of the opposite figure is ..... unit  
( 6 or 8 or 12 )





**Second** Answer the following

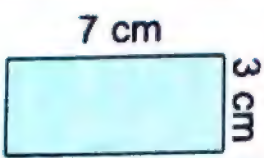
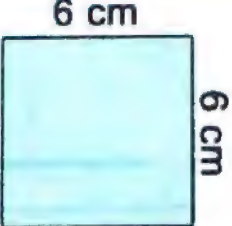

**1** Complete the following table :

	The side length	The perimeter of the square	The area of the square
a	6 cm	... X ... = ... cm	... X ... = ... square cm
b	..... cm	32 cm	... X ... = ... square cm
c	..... cm	... X ... = ... cm	25 Sq cm

**2** Complete the following table :

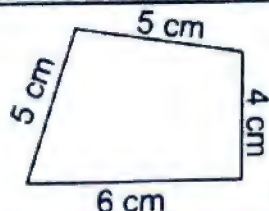
	The length	The width	The perimeter of the rectangle	The area of the rectangle
a	7cm	3cm	(... + ...) X ... = ... cm	... X ... = ... square unit
b	7 cm	... cm	22 cm	... X ... = ... square unit
c	... cm	5 cm	28 cm	... X ... = ... square unit
d	... cm	3 cm	(... + ...) X ... = ... cm	30 Sq cm
e	8 cm	... cm	(... + ...) X ... = ... cm	48 Sq cm

**3** Complete the following table :

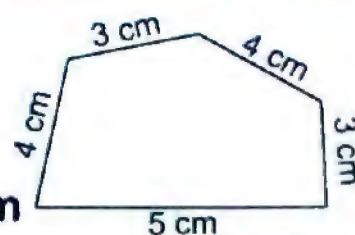
The shape	 <p>a</p>	 <p>b</p>	 <p>c</p>
The perimeter	..... cm	..... cm	..... units
The area	..... Sq cm	..... Sq cm	..... Sq units

**4** Calculate the perimeter of each of the following :

a The perimeter



b The perimeter

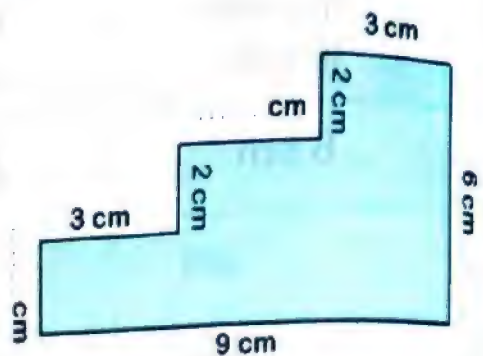




- 5 Find the missing length and write them on the graph , then find the area and the perimeter of each of the following :

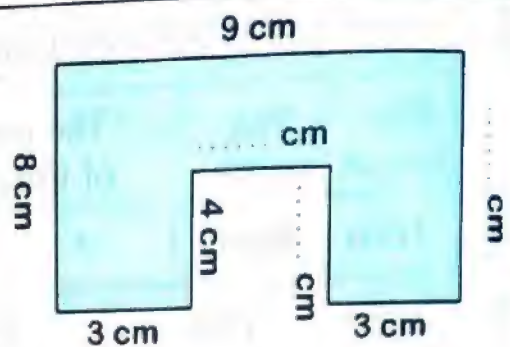
a (1) The perimeter = .....  
= ..... cm

(2) The area = .....  
.....  
.....  
= ..... Sq cm



b (1) The perimeter = .....  
= ..... cm

(2) The area = .....  
.....  
.....  
= ..... Sq cm



- 6 Draw a hexagon with a perimeter of 18 cm , Sketch the hexagon , then draw a quadrilateral with the same perimeter , show the lengths of its sides on the drawing.

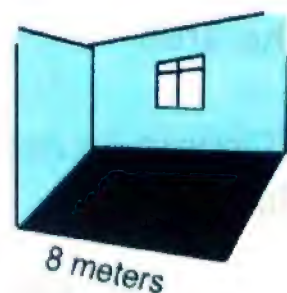
Hexagon



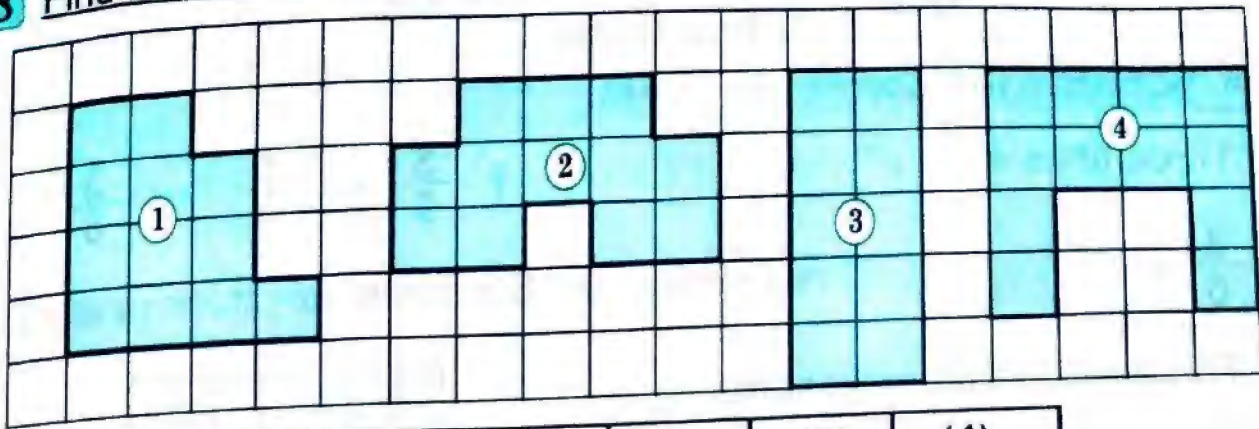
Quadrilateral

- 7 If the floor of Nada's room is a rectangle its perimeter is 28 meters , and the length of the room 8 meters , What is the width of the room and its area ?

.....  
.....  
.....



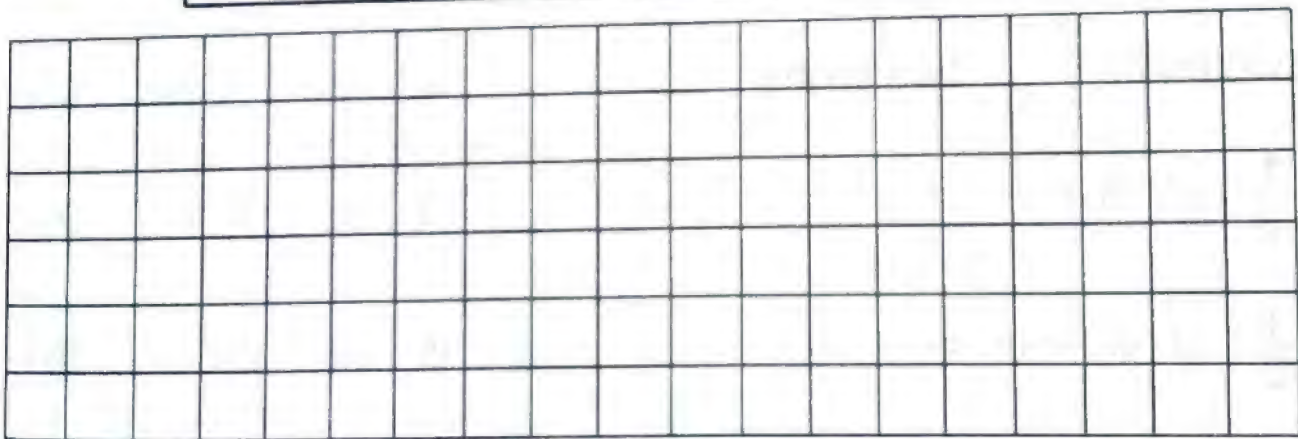
8 Find the area and the perimeter of the following shapes



The Shape	(1)	(2)	(3)	(4)
The perimeter	.....	.....	.....	.....
The area	.....	.....	.....	.....

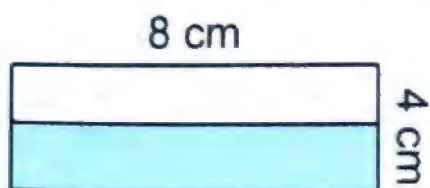
9 Use the given perimeters and areas to draw irregular shapes, then complete the table :

The Shape	(1)	(2)	(3)	(4)
The perimeter	.....	8	.....	10
The area	5	.....	12	.....



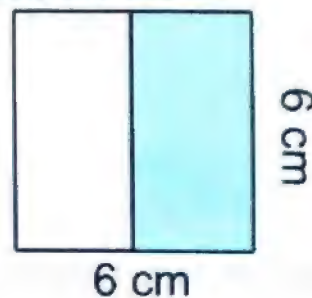
10 Calculate the area of the colored part of each shape

a



.....  
.....

b



.....  
.....



# GENERAL EXERCISES ON Fractions

**First** Choose the correct answer

a Three fifths = . . . . .

(  $\frac{3}{5}$  or  $\frac{5}{3}$  or  $\frac{3}{8}$  )

b  $\frac{3}{6}$  = . . . . . ( Three sixths or Six thirds or three ninths )

c The fraction that represents the shaded part = . . . . .



(  $\frac{4}{3}$  or  $\frac{3}{4}$  or  $\frac{3}{7}$  )

d  $\frac{1}{4}$  ☐  $\frac{1}{7}$

( < or = or > )

e  $\frac{3}{7}$  ☐  $\frac{5}{7}$

( < or = or > )

f  $\frac{1}{3}$  ☐  $\frac{2}{6}$

( < or = or > )

g Half of an hour ☐ Half of a day

( < or = or > )

h Two thirds ☐ Two sixths

( < or = or > )

i  $\frac{1}{3}$  of 18 = . . . . .

( 3 or 6 or 9 )

j  $\frac{1}{2}$  of an hour = . . . . .

( 15 or 20 or 30 )

k  $\frac{1}{4}$  of . . . . . =  $24 \div 8$

( 8 or 6 or 12 )

l  $1 = \frac{5}{\dots}$

( 3 or 4 or 5 )

m The fraction represented on the number line is . . . . .



(  $\frac{2}{3}$  or  $\frac{2}{4}$  or  $\frac{2}{5}$  )

**Second** Complete the following

a ..... eighths =  $\frac{\dots}{8}$

b  $1 = \frac{\dots}{6}$

c  $\frac{2}{5} = \frac{6}{\dots}$

d  $\frac{\dots}{15} = \frac{2}{3}$

e  $\frac{2}{3} = \frac{4}{\dots} = \frac{\dots}{12}$

f  $\frac{18}{24} = \frac{3}{\dots} = \frac{\dots}{8}$

g  $\frac{1}{5} + \frac{3}{5} = \frac{\dots}{\dots}$

h  $\frac{2}{7} + \frac{\dots}{\dots} = \frac{5}{7}$

i  $1 - \frac{2}{3} = \frac{\dots}{\dots}$

j  $\frac{5}{8} - \frac{\dots}{\dots} = \frac{2}{8}$

k  $\frac{1}{6} + \frac{1}{6} + \frac{3}{6} = \frac{\dots}{\dots}$

l  $\frac{\dots}{\dots}$  of 20 =  $20 \div 4$

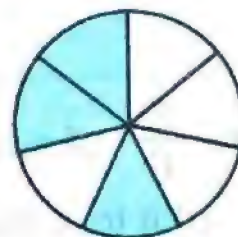
m  $\frac{1}{3}$  of 24 =  $24 \div \dots$

n  $\frac{1}{3} = \frac{2}{\dots} = \frac{3}{\dots} = \frac{4}{\dots}$

o The fraction that represents the colored part = .....



p The fraction that represents the colored part = .....



q The fraction that represents on the number line = .....



r The fraction that represents on the number line = .....





**Third Answer the following**

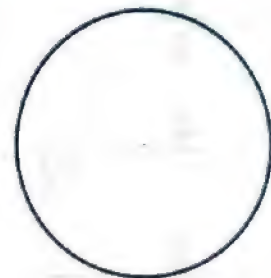
**1** Complete the following :

The fraction of colored stars =  $\frac{\dots\dots}{\dots\dots}$

The fraction of colored stars =  $\frac{\dots\dots}{\dots\dots}$



**2** Nadia has a loaf of bread. she wants to share it with 2 of her friends. Use the opposite shape to represent this situation

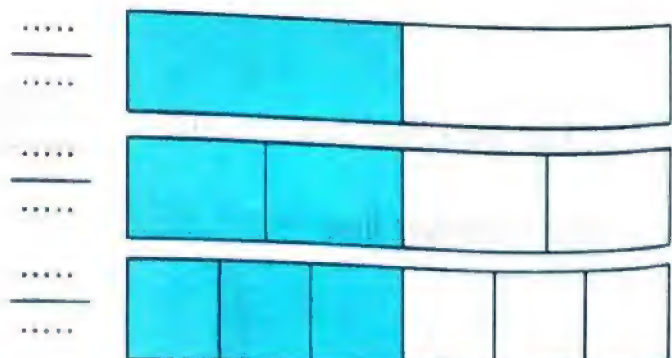


**3** Ahmed ate  $\frac{1}{2}$  of the pizza and Bassem ate  $\frac{1}{5}$  of the pizza. Who ate the most ? , ( Draw a model to explain your answer )

**4** Omar bought  $\frac{5}{6}$  of a candy bar to the playground break , He gave  $\frac{2}{6}$  of it to a friend . How much does he have left ?

**5** Use the fraction Models to complete :

$$\frac{\dots\dots}{\dots\dots} = \frac{\dots\dots}{\dots\dots} = \frac{\dots\dots}{\dots\dots}$$



- 6 Represent each of the following fractions and then complete using ( $<$ ,  $=$  or  $>$ ) (use the number lines or the model given)

$$\frac{1}{2} \square \frac{1}{5}$$

$$\frac{1}{2}$$

$$\frac{1}{5}$$

$$\frac{1}{7} \square \frac{1}{4}$$

$$\frac{1}{7}$$

$$\frac{1}{4}$$

$$\frac{1}{6} \square \frac{1}{3}$$

$$\frac{1}{6}$$

$$\frac{1}{3}$$

- 7 Arrange the following fraction in an ascending order:

a  $\frac{3}{5}$  ,  $\frac{4}{5}$  ,  $\frac{1}{5}$  ,  $\frac{2}{5}$

The order : .....

b  $\frac{1}{3}$  ,  $\frac{1}{5}$  ,  $\frac{1}{8}$  ,  $\frac{1}{2}$

The order : .....

- c Use the following number line :

$$\frac{1}{8} , \frac{3}{6} , \frac{5}{8} , \frac{1}{4}$$



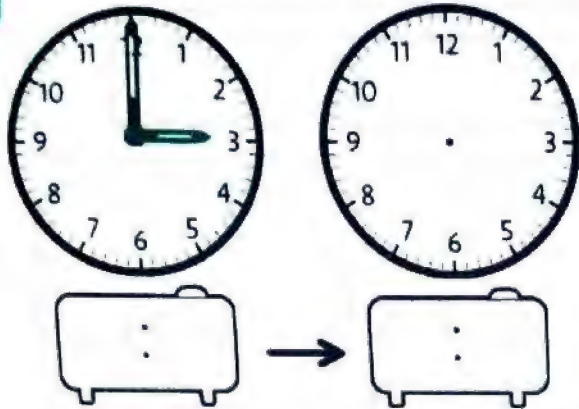
The order : .....



# GENERAL EXERCISES ON The Time

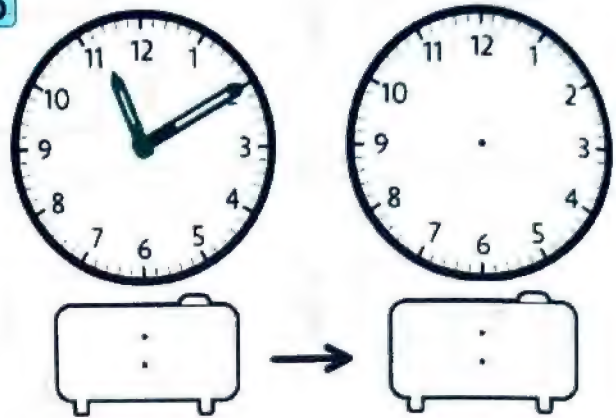
**1** Draw the analog clock hands and write the time on the digital clock to show the time :

**a**



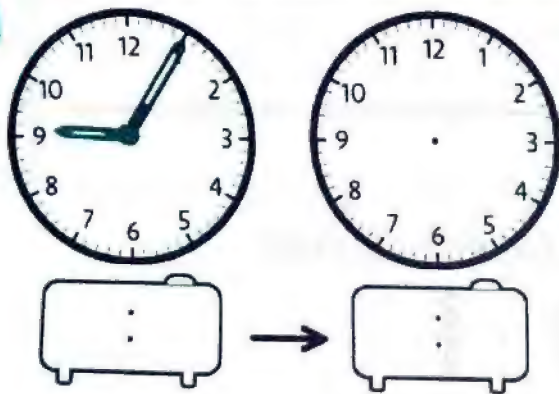
After two hours

**b**



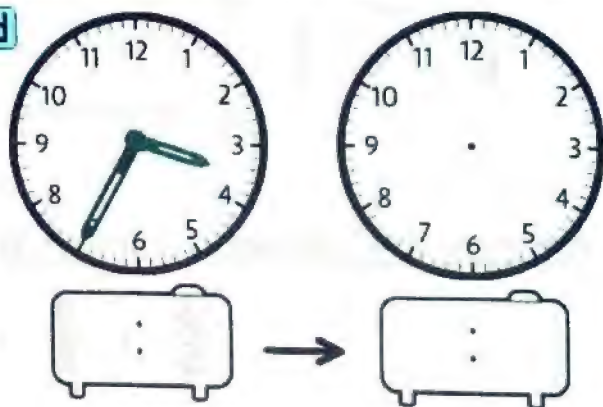
3 hours ago

**c**



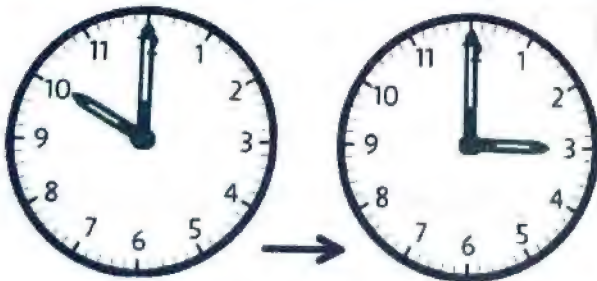
After 30 minutes

**d**

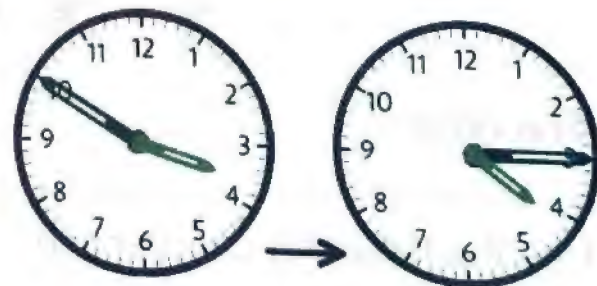


20 minutes ago

**2** Calculate the elapsed time between the two clocks :



**a** Elapsed time : .....



**b** Elapsed time : .....



**c** Elapsed time : .....



**d** Elapsed time : .....



3 How much time has elapsed ?

- a 7 : 30 a.m. → 8 : 00 a.m. ....
- b 4 : 10 p.m. → 4 : 55 p.m. ....
- c 1 : 30 a.m. → 2 : 45 a.m. ....
- d 10 : 15 a.m. → 3 : 30 p.m. ....

4 Ahmed wakes up at 7:00, leaves the house and goes to work at 8:30. It takes 20 minutes to get to work, and 20 minutes from work, then he spends 6 hours at work and comes home immediately. How will the analog clocks look when he wakes up, when he leaves home, and when he comes home?



Wakes up



Leaves home



Comes home again

5 Nada went to the club with her family. They got to the club at 10:00 a.m. and came home at 1:30 p.m. How much time did they spend in the club?

Arrival time



Come home time



Elapsed time : .....

6 Heba spends 4 hours reading. She finished reading the book at 7:30 pm . When did you start reading?



Started



Finished



# GENERAL EXERCISES ON Numbers up to 999 999

## First Choose the correct answer

- a Nine hundred fifty thousand , Two hundred and two = .....  
( 950 202 or 905 202 or 950 220 )
- b 70 thousands + 20 hundreds + 7 tens + 6 ones = .....  
( 702 076 or 72 076 or 70 276 )
- c  $500 + 20\,000 + 70 + 8\,000 + 4 = \dots\dots\dots$   
( 52 784 or 28 457 or 28 574 )
- d The value of the digit 7 in the number 57 234 is .....  
( 700 or 7 000 or 70 000 )
- e The greatest 5 - different - digit number is .....  
( 99 999 or 10 000 or 98 765 )
- f The number that comes before 70 000 is .....  
( 69 999 or 70 001 or 79 999 )
- g 700 thousands = ..... hundreds  
( 700 or 7 000 or 700 000 )
- h  $45\,678 \square 45\,687$  ( < or = or > )
- i  $5 + 200 + 7000 \square 5270$  ( < or = or > )
- j  $4\,253 + 1\,245 \square 9\,699 - 4\,201$  ( < or = or > )

## Second Complete the following

- a 70 502 ( in word form ) .....
- b The place-value of the digit 5 in the number 72 512 is .....
- c The smallest 5 - digit number is .....
- d The number ..... comes right after 45 999
- e ..... thousands + ..... hundreds + ..... tens + ..... ones = 78 245

- f  $50 + 0 + 0 + 4 = \dots\dots\dots$
- g The largest 5- digit number formed from the digit ( 7 , 2 and 3 )  
is  $\dots\dots\dots$
- h  $98\ 253 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots$
- i  $63\ 063 = 63 + \dots\dots\dots$
- j  $45\ 234 + 2\ 175 = \dots\dots\dots$
- k  $78\ 245 - 2\ 673 = \dots\dots\dots$
- l  $\dots\dots\dots + 24\ 123 = 78\ 556$
- m  $\dots\dots\dots - 4\ 125 = 8\ 243$

**Third Answer the following**

- 1 Arrange the following numbers in an ascending order and in  
a descending order :
- $45\ 462$  ,  $45\ 364$  ,  $45\ 642$  ,  $45\ 436$
- a The ascending order :  $\dots\dots\dots$
- b The descending order :  $\dots\dots\dots$
- 
- 2 Eman has 625 pounds and Nada has 265 pounds .  
How much money do they have altogether ?  
They have =  $\dots\dots\dots + \dots\dots\dots = \dots\dots\dots$  pounds
- 
- 3 Sara wants to buy a refrigerator, which costs LE 4 250 .  
She saved LE 2 450.  
How much money does she need to buy The refrigerator?  
The money that she needs =  $\dots\dots\dots - \dots\dots\dots = \text{LE } \dots\dots\dots$



## First Choose the correct answer

- a The perimeter of a square with side length 6 cm is . . . . . cm  
( 36 or 12 or 24 )
- b Three fifths = . . . . .  
(  $\frac{3}{5}$  or  $\frac{5}{3}$  or  $\frac{3}{8}$  )
- c  $6 + 6 + 6 + 6 + 6 = \dots\dots\dots$  (  $6 \times 6$  or  $6 + 5$  or  $6 \times 5$  )
- d Nine hundred fifty thousand , Two hundred and two = . . . . .  
( 950 202 or 905 202 or 950 220 )
- e  $7 \times 30 = \dots\dots\dots$  (  $2 \times 1 \times 10$  or  $21 \times 3$  or  $21 \times 10$  )

## Second Complete the following

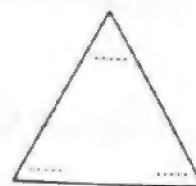
- a  $\frac{18}{24} = \frac{3}{\dots\dots\dots} = \frac{\dots\dots\dots}{8}$
- b  $7 \times (5 \times \dots\dots\dots) = (\dots\dots\dots \times 5) \times 9$
- c The place-value of the digit 5 in the number 72 512 is . . . . .
- d The perimeter of the opposite figure is . . . . .
- e The elapsed time from 7 : 00 am to 9 : 15 am is . . . . .



## Third Answer the following

- a Use 6 and 3 to complete the fact family below :

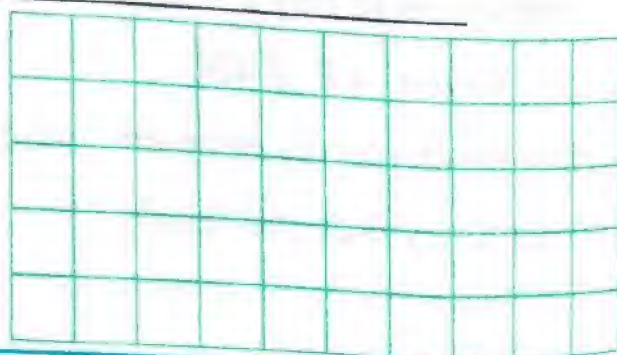
- ①  $\dots\dots \times \dots\dots = \dots\dots$       ③  $\dots\dots \div \dots\dots = \dots\dots$   
②  $\dots\dots \times \dots\dots = \dots\dots$       ④  $\dots\dots \div \dots\dots = \dots\dots$



- b Mona has 3 books and each book has 50 pages .  
How many pages are ther in the two books ?

The number of pages = . . . . .

- c On the grid. Draw an irregular shape of area 12 square units and find its perimeter



## First Choose the correct answer

- a  $\frac{3}{6} = \dots\dots\dots$  ( Three sixths **or** Six thirds **or** three ninths )
- b  $9 \times 4 = 30 + \dots\dots\dots$  ( 6 **or** 36 **or** 9 )
- c The perimeter of a rectangle with length 8 cm and width 3 cm is  $\dots\dots\dots$  cm ( 24 **or** 22 **or** 11 )
- d  $7 \times 4 \times 3 = \dots\dots\dots$  (  $7 \times (4 + 3)$  **or**  $(7 + 4) \times 3$  **or**  $7 \times 12$  )
- e The largest 5-digit number is ( 10 000 **or** 98 765 **or** 99 999 )

## Second Complete the following

- a  $\frac{\dots}{15} = \frac{2}{3}$
- b  $8 \times 2 = \dots\dots\dots + \dots\dots\dots + \dots\dots\dots + \dots\dots\dots$
- c The area of the opposite figure is  $\dots\dots\dots$
- d The place-value of the digit of the digit 5 in 24 523 is  $\dots\dots\dots$
- e  $6 \times (3 + 7) = (6 \times \dots\dots\dots) + (6 \times \dots\dots\dots) = \dots\dots + \dots\dots = \dots\dots$



## Third Answer the following

- a Omar bought  $\frac{5}{6}$  of a candy bar to the playground break , He gave  $\frac{2}{6}$  of it to a friend . How much does he have left ?
- $\dots\dots\dots$

- b Arrange the following number in a descending order :

45 230 , 45 302 , 45 023 , 45 203

The order :  $\dots\dots\dots$

- c Draw the hands of the analog clock. according to the time shown.



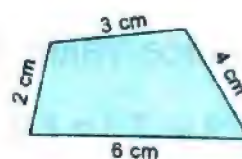


## First Choose the correct answer

- a  $8 \times 2 = \dots\dots\dots$  (  $4 \times 4$  or  $8 + 2$  or  $4 \times 6$  )
- b  $\frac{1}{3}$    $\frac{2}{6}$  (  $<$  or  $=$  or  $>$  )
- c The side length of a square is 9 cm , then its area =  $\dots\dots\dots$  Sq cm  
( 81 or 18 or 36 )
- d The number that comes right after 56 099 is  $\dots\dots\dots$   
( 56 199 or 56 100 or 57 000 )
- e  $6 \times 5 \times 4 = \dots\dots\dots$  (  $20 \times 30$  or  $6 \times 9$  or  $30 \times 4$  )

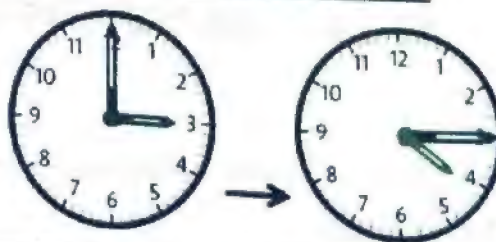
## Second Complete the following

- a The largest number formed from ( 2 , 7 , 6 , 4 and 3 ) is  $\dots\dots\dots$
- b  $\dots\dots\dots \times ( 7 + \dots\dots\dots ) = 9 \times 13$
- c  $\frac{1}{3}$  of 24 =  $24 \div \dots\dots\dots$
- d The perimeter of the opposite figure is  $\dots\dots\dots$
- e  $7\,562 + 456 = \dots\dots\dots$



## Third Answer the following

- a Use the fraction Models to complete :  $\frac{\dots\dots\dots}{\dots\dots\dots} = \frac{\dots\dots\dots}{\dots\dots\dots} = \frac{\dots\dots\dots}{\dots\dots\dots}$
- b Calculate the elapsed time between the two clocks :
- Elapsed time :  $\dots\dots\dots$
- c Ahmed has three boxes, each box has 5 bags and each bag has 4 oranges. How many oranges does Ahmed have?



## First Choose the correct answer

- a The dimensions of a rectangle are 5 cm and 3 cm then the area of the rectangle = ..... Sq cm ( 15 **or** 16 **or** 8 )
- b Half of an hour  Half of a day ( < **or** = **or** > )
- c If  $7 \times 12 = 84$ , then .....  $\div 12 = 7$  ( 7 **or** 12 **or** 84 )
- d  $400 + 0 + 0 + 5 = \dots\dots\dots$  ( 40 005 **or** 405 **or** 45 )
- e  $9 \times 15 =$  (  $9 \times (10 \times 5)$  **or**  $9 + (10 + 5)$  **or**  $9 \times 3 \times 5$  )

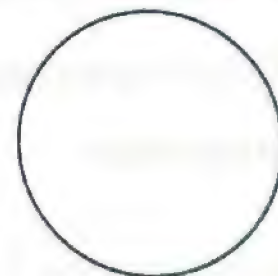
## Second Complete the following

- a  $\frac{1}{3} = \frac{2}{\dots} = \frac{3}{\dots} = \frac{4}{\dots}$
- b  $6 \times 15 = (\dots \times 3) \times 5$
- c The area of the opposite figure is .....
- d 566 thousands + 15 = .....
- e  $4 \times 7 = \dots + \dots + \dots + \dots$



## Third Answer the following

- a Nadia has a loaf of bread. she wants to share it with 2 of her friends. Use the opposite shape to represent this situation



- b Arrange the following fractions in a descending order :

$$\frac{2}{6}, \frac{2}{9}, \frac{2}{3}, \frac{2}{5}$$

.....

- c Find the result :

$$\begin{array}{r} 4\,521 \\ + 269 \\ \hline \end{array}$$


$$\begin{array}{r} 7\,549 \\ - 727 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \dots\dots \\ 7 \overline{) 28} \end{array}$$



## First Choose the correct answer

- a  $8 \times 15 = (8 \times 10) + (8 \times \dots\dots\dots)$  ( 5 or 6 or 7 )
- b The fraction that represents the shaded part =  $\dots\dots\dots$   (  $\frac{4}{3}$  or  $\frac{3}{4}$  or  $\frac{3}{7}$  )
- c The perimeter of a square is 24 cm , then the side length of the square is  $\dots\dots\dots$  cm ( 12 or 8 or 6 )
- d  $4 \times 9 = \dots\dots \times 6$  ( 4 or 9 or 6 )
- e 400 thousands =  $\dots\dots$  Tens ( 400 or 4 000 or 40 000 )

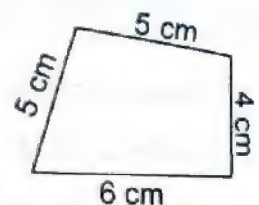
## Second Complete the following

- a  $\frac{\dots}{15} = \frac{2}{3}$       b  $8 \times \dots\dots\dots = 32$
- c The place value of the digit 6 in the number 23 456 is  $\dots\dots\dots$
- d The number  $\dots\dots\dots$  comes right after 75 099 .
- e  $9 \times (3 \times \dots\dots) = (\dots\dots \times 3) \times 10 = \dots\dots \times \dots\dots = \dots\dots$

## Third Answer the following

- a Calculate the perimeter

The perimeter  $\dots\dots\dots$  cm



- b Manal spends 3 hours studying. If she start studying at 6:30. When does Manal finish her studies?



Started



Finished

- c Ahmed planted two gardens , The first contains 3 rows in each row of 8 orange trees, and the second has 3 rows in each row of 5 orange trees , How many orange trees Ahmed planted?
- $\dots\dots\dots$
- $\dots\dots\dots$

# Model (6)

Maths

## First Choose the correct answer

- a The area of a rectangle is 36 Sq cm and its length is 9 cm , then the width of the rectangle is .....cm ( 4 or 6 or 45 )
- b Two thirds  Two sixths ( < or = or > )
- c ..... = 4 X 6 ( 16 or 24 or 32 )
- d Nine hundred thousand and nine ..... ( 9009 or 900 009 or 900 090 )
- e  $8 \times 6 = 4 \times \dots \times 6$  ( 2 or 4 or 6 )

## Second Complete the following



- a The perimeter of the opposite figure is .....
- b  $\frac{2}{3} = \frac{4}{\dots} = \frac{\dots}{12}$
- c The smallest number formed from ( 3 , 5 , 2 , 7 and 0 ) is .....
- d  $9 \times 15 = ( 9 \times \dots ) + ( 9 \times 5 ) = \dots + \dots = \dots$
- e  $6 \times 3 = \dots + \dots + \dots$

## Third Answer the following

- a Represnt each of the following fractions and then complete using ( < , = or > ) ( use the numbe lines )

$\frac{1}{6}$    $\frac{1}{3}$



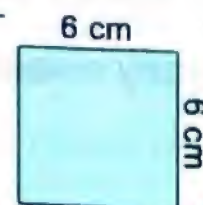
- b Ahmed had LE 1 120 , He bought a shirt for LE 450 . Find the remaining money with Ahmed .

The remainder = ..... - ..... = LE .....

- c Find the area and the perimeter :

The area = .....

The perimeter = .....





## First Choose the correct answer

- a  $42 \div 7 = \dots\dots\dots$  ( 8 or 7 or 6 )
- b  $\frac{1}{4}$  of  $\dots\dots\dots = 24 \div 8$  ( 8 or 6 or 12 )
- c 50 hundreds + 20 thousands + 2 tens =  $\dots\dots\dots$  ( 20 502 or 20 052 or 25 020 )
- d  $8 \times 30 = \dots\dots\dots \times 10$  ( 8 or 24 or 240 )
- e The area of a rectangle is 36 Sq cm and its length is 9 cm , then the width of the rectangle is  $\dots\dots\dots$ cm ( 4 or 6 or 45 )

## Second Complete the following

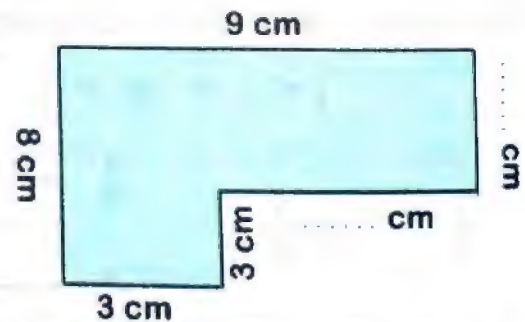
- a The place value of the digit 3 in the number 52 301 is  $\dots\dots\dots$
- b  $\dots\dots\dots + \frac{3}{6} = \frac{4}{6}$  c  $\frac{3}{4} = \frac{9}{\dots\dots\dots}$
- d  $\dots\dots\dots \times (8 + \dots\dots\dots) = 9 \times 13$
- e The fraction that represents the colored part =  $\dots\dots\dots$



## Third Answer the following

- a Find the area and the perimeter :

- (1) The perimeter =  $\dots\dots\dots$   
 $= \dots\dots\dots$  cm
- (2) The area =  $\dots\dots\dots$   
 $= \dots\dots\dots$  Sq cm



- b Calculate the elapsed time between the two clocks :

Elapsed time :  $\dots\dots\dots$



- c Marwa has 24 sweets that she wants to distribute to three children.  
 How many sweets will each child have?


$\dots\dots\dots$   
 $\dots\dots\dots$



## First Choose the correct answer

- a  $20\ 000 + 5 + 300 =$  ( 20 305 or 20 530 or 25 300 )
- b  $5 \times \dots = 35$  ( 8 or 7 or 6 )
- c  $9 \times \dots = (9 \times 5) + (9 \times 6)$  ( 30 or 11 or 9 )
- d There are .... fifths in the 1 - whole ( 10 or 1 or 5 )
- e  $\frac{3}{7} \square \frac{5}{7}$  ( < or = or > )

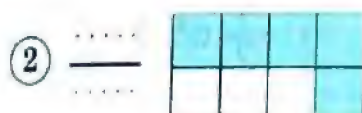
## Second Complete the following

- a The fraction that represents on the number line = .....
- 
- b If  $8 \times 9 = 72$ , then  $72 \div 8 = \dots$  and  $72 \div 9 = \dots$
- c The value of the digit 0 in the number 70 235 is .....
- d  $8 \times 5 \times 2 = (8 \times \dots) \times 2 = \dots \times 2 = \dots$
- e The area of a rectangle is 42 Sq cm and its width is 6 cm, then the length is ..... cm

## Third Answer the following

- a If the floor of Nada's room is a rectangle its perimeter is 28 meters, and the length of the room 8 meters, What is the width of the room and its area ?
- .....
- .....

- b Write the fraction that represents the colored part :



- c Use the following number line :

$$\frac{1}{8}, \frac{3}{6}, \frac{5}{8}, \frac{1}{4}$$



The order : .....



## First Choose the correct answer

- a  $\frac{1}{2}$  of an hour = ..... ( 15 or 20 or 30 )
- b  $7\ 000 + 25 =$  ( 725 or 7250 or 7025 )
- c  $7 \times 30 = \dots\dots\dots \times 10$  ( 21 or 10 or 7 )
- d The value of the digit 0 in the number 20 456 is ..... ( 0 or 10 or 1000 )
- e 90 thousands = ..... tens ( 90 or 900 or 9 000 )

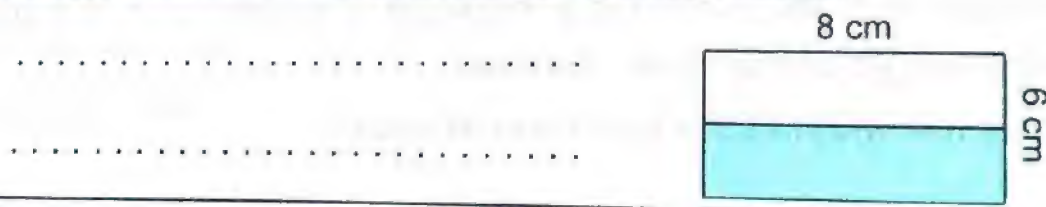
## Second Complete the following



- a The fraction that represents the colored part = .....
- b  $36 \div \dots\dots\dots = 9$  c  $\frac{1}{3} = \frac{2}{\dots} = \frac{3}{\dots}$
- d The perimeter of a rectangle is 24 cm and its length is 8 cm, then  
The width of the rectangle is ..... cm
- e The number that comes right after 25 999 is .....

## Third Answer the following

- a Calculate the area of the colored part of each shape



- b Complete using ( $<$ ,  $=$  or  $>$ ):

- ① 705 203  75 320      ②  $6 + 200 + 700\ 000$   620700
- ③  $\frac{7}{9} - \frac{2}{9}$    $\frac{3}{5} + \frac{2}{5}$       ④  $\frac{1}{2}$  of 8   $\frac{1}{3}$  of 12

- c Hisham has a 12-meter-long piece of cloth that he wants to divide into 4 parts. What is the length of each part?  
And what is the equivalent fraction of one part?
- .....
- .....

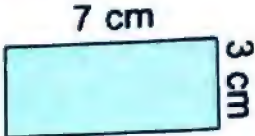
# Model (10)

Maths

## First Choose the correct answer

- a  $\frac{1}{4}$  ☐  $\frac{1}{7}$  (  $<$  or  $=$  or  $>$  )
- b The place value of the digit 5 in the number 42 514 is .....  
( Thousands or Hundreds or Ten thousands )
- c  $6 \times ( \dots \times 7 ) = ( 6 \times 5 ) \times 7$  ( 6 or 5 or 7 )
- d 50 thousands + 200 hundreds = .... ( 50 200 or 52 000 or 70 000 )
- e  $45 \times 10 = 5 \times \dots$  ( 10 or 90 or 9 )

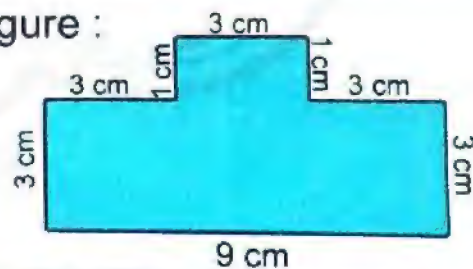
## Second Complete the following

- a The perimeter of the opposite figure is ..... 
- b  $50\,000 + 20 + 7\,000 + 500 + 3 = \dots$
- c  $4 \times ( 10 + 7 ) = ( 4 \times \dots ) + ( 4 \times 7 ) = \dots + \dots = \dots$
- d  $1 = \frac{5}{\dots}$  e  $\frac{2}{\dots} = \frac{14}{35}$

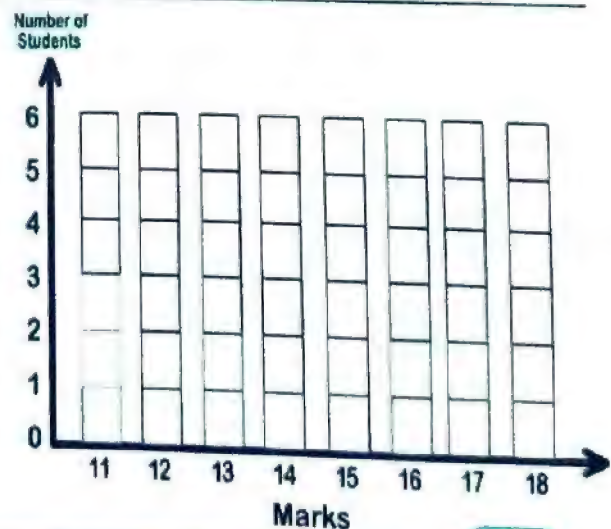
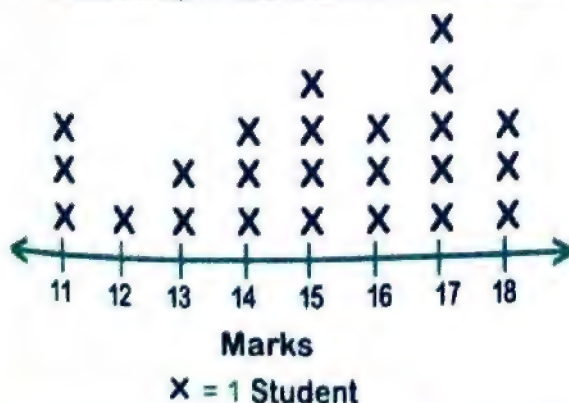
## Third Answer the following

- a Find the result :
- ①  $75\,234 + 4\,866 = \dots$  ②  $\frac{3}{5} - \frac{1}{5} = \dots$
- ③  $48 \div 6 = \dots$  ④  $8 \times 20 = \dots$

- b Calculate the area of the opposite figure :



- c Use the following line plot to complete the bar graph







**ANSWERS**

## Chapter ( 1 )

### Lesson ( 1 )

#### (1) Complete

- $18, 3 \times 6 = 18, 6 \times 3 = 18$
- $20, 4 \times 5 = 20, 5 \times 4 = 20$
- $18, 3 \times 6 = 18, 6 \times 3 = 18$
- $8, 2 \times 4 = 8, 4 \times 2 = 8$
- $4 + 4 + 4 + 4 + 4 + 4 + 4$
- $7 + 7 + 7 + 7$
- $8 + 8 + 8 + 8 + 8$

#### (2) Write the factors of :

- $1 \times 7, 1, 7$
- $1 \times 15, 3 \times 5, 1, 3, 5, 15$   
 $1 \times 18, 2 \times 9, 3 \times 5$
- $1, 2, 3, 6, 9, 18$

#### (3) Write two multiplication equations.

- $(2 \times 5) \times 6 = 10 \times 6 = 60$   
 $2 \times (5 \times 6) = 2 \times 30 = 60$
- $(3 \times 5) \times 4 = 15 \times 4 = 60$   
 $3 \times (5 \times 4) = 3 \times 20 = 60$
- $(3 \times 2) \times 10 = 6 \times 10 = 60$   
 $3 \times (2 \times 10) = 3 \times 20 = 60$
- $(2 \times 4) \times 10 = 8 \times 10 = 80$   
 $2 \times (4 \times 10) = 2 \times 40 = 80$

#### (4) $2 \times 3 \times 5 = (2 \times 3) \times 5 = 6 \times 5 = 30$

#### (5) Use the distribution property :

- $6 \times 8 = 6 \times (6 + 2)$   
 $= (6 \times 6) + (6 \times 2)$   
 $= 36 + 12 = 48$   
 $6 \times 8 = 6 \times (5 + 3)$   
 $= (6 \times 5) + (6 \times 3)$   
 $= 30 + 18 = 48$
- $5 \times 12 = 5 \times (10 + 2)$   
 $= (5 \times 10) + (5 \times 2)$   
 $= 50 + 10 = 60$   
 $5 \times 12 = 5 \times (5 + 7)$   
 $= (5 \times 5) + (5 \times 7)$   
 $= 25 + 35 = 60$

### Homework

#### (1) Complete :

- $20, 5 \times 4 = 20, 4 \times 5 = 20$
- $20, 4 \times 5 = 20, 5 \times 4 = 20$
- $12, 6 \times 2 = 12, 2 \times 6 = 12$
- $12, 2 \times 6 = 12, 6 \times 2 = 12$
- $15, 3 \times 5 = 15, 5 \times 3 = 15$
- $15, 5 \times 3 = 15, 3 \times 5 = 15$
- $5, 1 \times 5 = 5, 5 \times 1 = 5$

- $14, 7 \times 2 = 14, 2 \times 7 = 14$
- $24, 8 \times 3 = 24, 3 \times 8 = 24$
- $24, 3 \times 8 = 24, 8 \times 3 = 24$
- $4 + 4 + 4 + 4 + 4$
- $2 + 2 + 2 + 2 + 2 + 2$
- $8 + 8 + 8$
- $6 + 6 + 6 + 6 + 6$
- $5 + 5 + 5 + 5 + 5 + 5$
- $4 + 4 + 4 + 4 + 4 + 4 + 4$
- $7 + 7 + 7 + 7$
- $5 + 5 + 5 + 5 + 5$

#### (2) Write the fractions of :

- $1 \times 5 = 1, 5$
- $1 \times 14, 2 \times 7 = 1, 2, 7, 14$
- $1 \times 12, 2 \times 6, 3 \times 4 = 1, 2, 3, 4, 6, 12$
- $1 \times 11 = 1, 11$
- $1 \times 8, 2 \times 4 = 1, 2, 4, 8$
- $1 \times 16, 2 \times 8, 4 \times 4 = 1, 2, 4, 8, 16$

#### (3) Write two multiplication equations.

- $(2 \times 3) \times 4 = 6 \times 4 = 24$   
 $2 \times (3 \times 4) = 2 \times 12 = 24$
- $(2 \times 3) \times 5 = 6 \times 5 = 30$   
 $2 \times (3 \times 5) = 2 \times 15 = 30$
- $(2 \times 5) \times 4 = 10 \times 4 = 40$   
 $2 \times (5 \times 4) = 2 \times 20 = 40$
- $(2 \times 5) \times 10 = 10 \times 10 = 100$   
 $2 \times (5 \times 10) = 2 \times 50 = 100$
- $(3 \times 3) \times 10 = 9 \times 10 = 90$   
 $3 \times (3 \times 10) = 3 \times 30 = 90$
- $(5 \times 3) \times 10 = 15 \times 10 = 150$   
 $5 \times (3 \times 10) = 5 \times 30 = 150$

#### (4) Circle the equations :

- $2 \times (4 \times 5), 8 \times 5$
- $21 \times 4, 7 \times 12$
- $6 \times 15, 18 \times 5$
- $3 \times (5 \times 2), (3 \times 5) \times 2$
- $(3 \times 4) \times 7, 3 \times 28$

#### (5) $3 \times 3 \times 5 = (3 \times 3) \times 5 = 9 \times 5 = 45$

#### (6) $2 \times 10 \times 5 = (2 \times 10) \times 5 = 20 \times 5 = 100$

#### (7) Use the distributive property :

- $6 \times 8 = 6 \times (6 + 2)$   
 $= (6 \times 6) + (6 \times 2)$   
 $= 36 + 12 = 48$   
 $6 \times 8 = 6 \times (5 + 3)$   
 $= (6 \times 5) + (6 \times 3)$   
 $= 30 + 18 = 48$



b)  $3 \times 12 = 3 \times (10 + 2)$   
 $= (3 \times 10) + (3 \times 2)$   
 $= 30 + 6 = 36$   
 $3 \times 12 = 3 \times (3 + 9)$   
 $= (3 \times 3) + (3 \times 9)$   
 $= 9 + 27 = 36$

c)  $7 \times 10 = 7 \times (5 + 5)$   
 $= (7 \times 5) + (7 \times 5)$   
 $= 35 + 35 = 70$   
 $7 \times 10 = 7 \times (7 + 3)$   
 $= (7 \times 7) + (7 \times 3)$   
 $= 49 + 21 = 70$

d)  $9 \times 15 = 9 \times (10 + 5)$   
 $= (9 \times 10) + (9 \times 5)$   
 $= 90 + 45 = 135$   
 $9 \times 15 = 9 \times (9 + 6)$   
 $= (9 \times 9) + (9 \times 6)$   
 $= 81 + 54 = 135$

e)  $6 \times 13 = 6 \times (10 + 3)$   
 $= (6 \times 10) + (6 \times 3)$   
 $= 60 + 18 = 78$   
 $6 \times 13 = 6 \times (6 + 7)$   
 $= (6 \times 6) + (6 \times 7)$   
 $= 36 + 42 = 78$

f)  $8 \times 12 = 8 \times (10 + 2)$   
 $= (8 \times 10) + (8 \times 2)$   
 $= 80 + 16 = 96$   
 $8 \times 12 = 8 \times (8 + 4)$   
 $= (8 \times 8) + (8 \times 4)$   
 $= 64 + 32 = 96$

**(8) Complete the following :**

a)  $7 \times 13 = 7 \times (10 + 3)$   
 $= (7 \times 10) + (7 \times 3)$   
 $= 70 + 21 = 91$

b)  $8 \times 15 = 8 \times (10 + 5)$   
 $= (8 \times 10) + (8 \times 5)$   
 $= 80 + 40 = 120$

c)  $9 \times 13 = 9 \times (10 + 3)$   
 $= (9 \times 10) + (9 \times 3)$   
 $= 90 + 27 = 117$

d)  $7 \times 12 = 7 \times (10 + 2)$   
 $= (7 \times 10) + (7 \times 2)$   
 $= 70 + 14 = 84$

**(9)**  $12 \times 7 = (10 + 2) \times 7$   
 $= (10 \times 7) + (2 \times 7)$   
 $= 70 + 14 = 84$

**10 Use the distribution property :**

a)  $7 \times 3 = (5 + 2) \times 3$   
 $= (5 \times 3) + (2 \times 3)$   
 $= 15 + 6 = 21$

b)  $8 \times 4 = (5 + 3) \times 4$   
 $= (5 \times 4) + (3 \times 4)$   
 $= 20 + 12 = 32$

c)  $9 \times 10 = (6 + 3) \times 10$   
 $= (6 \times 10) + (3 \times 10)$   
 $= 60 + 30 = 90$

**Sheet (1)**

First : Choose the correct answer :

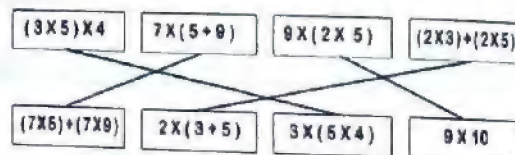
- a)  $3 \times 8$                       b)  $6 + 6 + 6$   
c)  $8 \times (10 + 5)$         d)  $(4 \times 3) \times 5$   
e)  $3 \times 13$

Second : Complete the following :

a)  $4 \times (2 \times 5) = 4 \times 10 = 40$   
b)  $5 \times (10 + 8) = (5 \times 10) + (5 \times 8)$   
 $= 50 + 40 = 90$   
c)  $4 \times (8 + 2) = 4 \times 10 = 40$   
d)  $5 \times 4 = 20$   
e)  $40 + 2$

Third : answer the following :

a) Join :



b)  $2 \times 5 \times 10 = (2 \times 5) \times 10$   
 $= 10 \times 10 = 100$  plants

**Lesson (2)**

**(1) Estimate the answer :**

	The Problem	The Estimation	The Actual Solution	Acceptable Answer
a	$7 \times 9$	$6 \times 9 = 54$ $7 \times 10 = 70$ The estimation = 60	$7 \times 9 = 7 \times (4 + 5)$ $= (7 \times 4) + (7 \times 5)$ $= 28 + 35 = 63$	✓
b	$6 \times 8$	$5 \times 8 = 40$ $6 \times 9 = 54$ The estimation = 50	$6 \times 8 = 6 \times (4 + 4)$ $= (6 \times 4) + (6 \times 4)$ $= 24 + 24 = 48$	✓
c	$4 \times 2 \times 5$ $8 \times 5$	$7 \times 5 = 35$ $8 \times 6 = 48$ The estimation = 40	$4 \times 2 \times 5$ $= (4 \times 2) \times 5$ $= 8 \times 5 = 40$	✓
d	$2 \times 3 \times 7$ $6 \times 7$	$5 \times 7 = 35$ $6 \times 8 = 48$ The estimation = 40	$2 \times 3 \times 7$ $= (2 \times 3) \times 7$ $= 6 \times 7 = 42$	✓



## (2) Estimate the answer :

	The problem	Front-end estimation strategy	Round to the nearest ten strategy	The actual solution
a)	$8 \times 12$	$8 \times 10 = 80$	$8 \times 10 = 80$	$8 \times 12 = 8 \times (10 + 2)$ $= (8 \times 10) + (8 \times 2)$ $= 80 + 16 = 96$
b)	$9 \times 13$	$9 \times 10 = 90$	$9 \times 10 = 90$	$9 \times 13 = 9 \times (10 + 3)$ $= (9 \times 10) + (9 \times 3)$ $= 90 + 27 = 117$
c)	$6 \times 19$	$6 \times 10 = 60$	$6 \times 20 = 120$	$6 \times 19 = 6 \times (10 + 9)$ $= (6 \times 10) + (6 \times 9)$ $= 60 + 54 = 114$

## Homework

## (1) Estimate the answer :

	The Problem	The Estimation	The Actual Solution	Acceptable	Unacceptable
a	$8 \times 7$	$7 \times 7 = 49$ $8 \times 8 = 64$ The estimation = 50	$8 \times (4 + 3)$ $= (8 \times 4) + (8 \times 3)$ $= 32 + 24 = 56$		✓
b	$4 \times 9$	$3 \times 9 = 27$ $4 \times 10 = 40$ The estimation = 30	$4 \times (5 + 4)$ $= (4 \times 5) + (4 \times 4)$ $= 20 + 16 = 36$		✓
c	$6 \times 8$	$5 \times 8 = 40$ $6 \times 9 = 54$ The estimation = 50	$6 \times (4 + 4)$ $= (6 \times 4) + (6 \times 4)$ $= 24 + 24 = 48$	✓	
d	$5 \times 9$	$4 \times 9 = 36$ $5 \times 10 = 50$ The estimation = 40	$5 \times (5 + 4)$ $= (5 \times 5) + (5 \times 4)$ $= 25 + 20 = 45$	✓	
e	$3 \times 4 \times 5$ $3 \times 20$	$2 \times 20 = 20 + 20 = 40$ $3 \times 21 = 21 + 21 + 21 = 63$ The estimation = 50	$3 \times (4 \times 5)$ $= 3 \times 20 = 60$		✓
f	$2 \times 8 \times 6$ $16 \times 6$	$15 \times 6 = (10 \times 6) + (5 \times 6)$ $= 60 + 30 = 90$ $16 \times 7 = (10 \times 7) + (6 \times 7)$ $= 70 + 42 = 112$ The estimation = 100	$3 \times (8 \times 6)$ $= 3 \times 48$ $= (3 \times 40) + (3 \times 8)$ $= 120 + 24 = 144$		✓
g	$4 \times 7 \times 5$ $4 \times 35$	$3 \times 35 = 35 + 35 + 35 = 105$ $4 \times 36 = 36 + 36 + 36 = 144$ The estimation = 120	$4 \times (7 \times 5)$ $= 4 \times 35$ $= (4 \times 30) + (4 \times 5)$ $= 120 + 20 = 140$		✓

## (2) Estimate the answer :

	The problem	Front-end estimation strategy	Round to the nearest ten strategy	The actual solution
a)	$8 \times 18$	$8 \times 10 = 80$	$8 \times 20 = 160$	$8 \times (10 + 8)$ $= (8 \times 10) + (8 \times 8)$ $= 80 + 64 = 144$
b)	$6 \times 13$	$6 \times 10 = 60$	$6 \times 10 = 60$	$6 \times (10 + 3)$ $= (6 \times 10) + (6 \times 3)$ $= 60 + 18 = 78$
c)	$3 \times 19$	$3 \times 20 = 60$	$3 \times 20 = 60$	$3 \times (10 + 9)$ $= (3 \times 10) + (3 \times 9)$ $= 30 + 27 = 57$
d)	$9 \times 16$	$9 \times 10 = 90$	$9 \times 20 = 180$	$9 \times (10 + 6)$ $= (9 \times 10) + (9 \times 6)$ $= 90 + 54 = 144$

## Sheet (2)

First : Choose the correct answer :

- a)  $4 \times (3 \times 4)$       b)  $4 \times 5$   
c)  $7 + 7 + 7$       d)  $5 \times (2 \times 6)$   
e)  $(7 \times 10) \times 8$

Second : Complete the following :

- a)  $9 + 9 + 9 + 9 + 9 + 9$   
b)  $9 + 9$   
c) 5  
d) 10, 7,  $30 + 21 = 51$   
e) 7,  $2 \times 5$ ,  $7 \times 10 = 70$

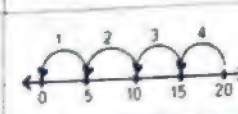

Third : answer the following :

- a)  $4 \times 3 \times 2 = 4 \times (3 \times 2)$   
 $= 4 \times 6 = 24$

The Problem	The Estimation	The Actual Solution	Acceptable	Unacceptable
$6 \times 8$	$5 \times 8 = 40$ $6 \times 9 = 54$ The estimation = 50	$6 \times 8 = 6 \times (4 + 4)$ $= (6 \times 4) + (6 \times 4)$ $= 24 + 24 = 48$	✓	

## Lesson (3)

## (1) Solve each problem :

	Problem	Work space ( Used strategy )	Answer
a	$16 \div 8$	$\begin{array}{r} 16 \\ - 8 \\ \hline 8 \\ - 8 \\ \hline 0 \end{array}$	2
b	$20 \div 5$		4
c	$24 \div 2$		12
d	$63 \div 7$	$7 \times 9 = 63$ so, $63 \div 7 = 9$	9

You can use other strategies

## (2) Complete the fact family :

a	b	c	d
12	14	24	36
3      4	2      7	8      3	6      6
$3 \times 4 = 12$	$2 \times 7 = 14$	$8 \times 3 = 24$	$6 \times 6 = 36$
$4 \times 3 = 12$	$7 \times 2 = 14$	$3 \times 8 = 24$	
$12 \div 3 = 4$	$14 \div 2 = 7$	$24 \div 3 = 8$	$36 \div 6 = 6$
$12 \div 4 = 3$	$14 \div 7 = 2$	$24 \div 8 = 3$	

## (3) Complete :

- a) 3    b) 3    c) 8    d) 8    e) 32    f) 12  
g) 6    h) 7    i) 35    j) 6    k) 8    l) 5

## (4) Fill in the missing number :

$2 \times 9 = 18$	$80 \div 10 = 8$
$7 \times 4 = 28$	$18 \div 2 = 9$
$8 \times 10 = 80$	$28 \div 4 = 7$

## (5)

Equation	Work space ( Used strategy )	Answer
$25 \div 5$	$\begin{array}{r} 25 \\ - 5 \\ \hline 20 \\ - 5 \\ \hline 15 \\ - 5 \\ \hline 10 \\ - 5 \\ \hline 5 \\ - 5 \\ \hline 0 \end{array}$	5



(6)

Equation

Work space ( Used strategy )

Answer

$6 \times 8$

$6 \times (6 + 2)$

$= (6 \times 6) + (6 \times 2) = 36 + 12$





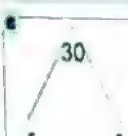
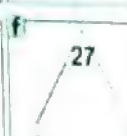
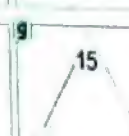

48

## Homework

- (1) a) 7    b) 8    c) 9    d) 4  
e) 7    f) 9    g) 9

( Use the appropriate strategy )

- (2) Fill in the missing number :

 <p> <math>3 \times 4 = 12</math>  <math>4 \times 3 = 12</math>  <math>12 \div 3 = 4</math>  <math>12 \div 4 = 3</math> </p>	 <p> <math>2 \times 7 = 14</math>  <math>7 \times 2 = 14</math>  <math>14 \div 7 = 2</math>  <math>14 \div 2 = 7</math> </p>	 <p> <math>7 \times 3 = 21</math>  <math>3 \times 7 = 21</math>  <math>21 \div 3 = 7</math>  <math>21 \div 7 = 3</math> </p>	 <p> <math>6 \times 7 = 42</math>  <math>7 \times 6 = 42</math>  <math>42 \div 6 = 7</math>  <math>42 \div 7 = 6</math> </p>
 <p> <math>5 \times 6 = 30</math>  <math>6 \times 5 = 30</math>  <math>30 \div 6 = 5</math>  <math>30 \div 5 = 6</math> </p>	 <p> <math>3 \times 9 = 27</math>  <math>9 \times 3 = 27</math>  <math>27 \div 9 = 3</math>  <math>27 \div 3 = 9</math> </p>	 <p> <math>2 \times 8 = 16</math>  <math>8 \times 2 = 16</math>  <math>16 \div 8 = 2</math>  <math>16 \div 2 = 8</math> </p>	 <p> <math>6 \times 8 = 48</math>  <math>8 \times 6 = 48</math>  <math>48 \div 6 = 8</math>  <math>48 \div 8 = 6</math> </p>

- (3) Complete :

- a) 7    b) 6    c) 9    d) 7  
e) 12    f) 21    g) 5    h) 9  
i) 24    j) 10    k) 9    l) 9

- (4) Fill in the missing numbers

a

$5 \times 4 = 20$	$42 \div 6 = 7$
$6 \times 7 = 42$	$45 \div 5 = 9$
$5 \times 9 = 45$	$20 \div 5 = 4$

b

$6 \times 8 = 48$	$24 \div 4 = 6$
$3 \times 8 = 24$	$24 \div 8 = 3$
$6 \times 4 = 24$	$48 \div 6 = 8$

c

$9 \times 2 = 18$	$12 \div 2 = 6$
$6 \times 2 = 12$	$12 \div 3 = 4$
$4 \times 3 = 12$	$18 \div 2 = 9$

- (5)  $25 \div 5 = 5$  ( Use the appropriate strategy )  
 (6)  $8 \times 6 = 48$  ( Use the appropriate strategy )  
 (7)  $45 \div 9 = 5$  ( Use the appropriate strategy )  
 (8)  $36 \div 6 = 6$  ( Use the appropriate strategy )

## Sheet (3)

First : Choose the correct answer :

- a) 4    b) 6    c) 10 X 9  
d) 7 X 6    e) 5 X 7

Second : Complete the following :

- a) 9    b) 63    c) 14  
d) 10    e) 8 + 8

Third : answer the following :

- a)  $36 \div 6 = 6$   
b)  $40 \div 8 = 5$

## Lesson (4)

- (1) Find the perimeter :

- a) The perimeter =  $3 + 3 + 3 + 6 = 15$  cm  
b) The perimeter =  $6 + 6 + 3 + 3 = 18$  cm

- (2) Find the area and the perimeter :

- a) The area =  $3 \times 6 = 18$  Sq cm  
The perimeter =  $(6+3) \times 2 = 18$  cm  
b) The area =  $4 \times 4 = 16$  Sq cm  
The perimeter =  $4 \times 4 = 16$  cm  
(3) The number of =  $5 \times 4 = 20$  meters  
(4) Width =  $(24 \div 2) - 10 = 12 - 10 = 2$  m  
(5)  $4 \times 4 = 16$  Sq cm ,  $2 \times 2 = 4$  Sq cm  
 $4 \times 4 = 16$  Sq cm  
Area =  $16 + 4 + 16 = 36$  Sq cm

## Homework

- (1) Find the perimeter :

- a) The perimeter =  $6 + 3 + 6 + 3 = 18$  cm  
b) The perimeter =  $3 + 3 + 3 + 6 = 15$  cm  
c) The perimeter =  $4 + 4 + 4 + 4 = 16$  cm  
d) The perimeter =  $2 + 5 + 3 + 6 = 16$  cm  
e) The perimeter =  $5 + 5 + 3 + 3 = 16$  cm  
f) The perimeter =  $3 + 3 + 3 + 3 = 12$  cm

- (2) Complete the following table :

The side length	7 cm	8 cm	9 cm	5 cm	4 cm	6 cm
The perimeter of the square	$7 \times 4 = 28$ cm	$8 \times 4 = 32$ cm	$9 \times 4 = 36$ cm	20 cm	16 cm	24 cm
The area of the square	$7 \times 7 = 49$ square unit	$8 \times 8 = 64$ square unit	$9 \times 9 = 81$ square unit	$5 \times 5 = 25$ square unit	$4 \times 4 = 16$ square unit	$6 \times 6 = 36$ square unit

- (3) Complete the following table :

The length	The width	The perimeter of the rectangle	The area of the rectangle
7 cm	5 cm	$(7 + 5) \times 2 = 24$ cm	$7 \times 5 = 35$ square unit
10 cm	4 cm	$(10 + 4) \times 2 = 28$ cm	$10 \times 4 = 40$ square unit
9 cm	3 cm	$(9 + 3) \times 2 = 24$ cm	$9 \times 3 = 27$ square unit
10 cm	3 cm	26 cm	$10 \times 3 = 30$ square unit
6 cm	5 cm	22 cm	$6 \times 5 = 30$ square unit

- (4) Find the area and the perimeter :

- a) The area =  $7 \times 4 = 28$  Sq cm  
The perimeter =  $(7+4) \times 2 = 22$  cm  
b) The area =  $7 \times 3 = 21$  Sq cm  
The perimeter =  $(7+3) \times 2 = 20$  cm



### (5) Calculate the perimeter and the area:

- a) The perimeter =  $10 + 8 + 4 + 4 + 6 + 4$   
 $= 36 \text{ cm}$   
 The area =  $(10 \times 4) + (4 \times 4)$   
 $= 40 + 16 = 56 \text{ Sq cm}$
- b) The perimeter =  $4 + 3 + 2 + 2 + 2 + 3 + 4$   
 $+ 8 = 28 \text{ cm}$   
 The area =  $(4 \times 3) + (2 \times 2) + (4 \times 3)$   
 $= 12 + 4 + 12 = 28 \text{ Sq cm}$
- c) The perimeter =  $2 + 6 + 8 + 6 + 2 + 4 + 4$   
 $+ 4 = 36$   
 The area =  $(6 \times 2) + (4 \times 2) + (6 \times 2)$   
 $= 12 + 8 + 12 = 32 \text{ Sq cm}$
- (6) The number of meters =  $10 \times 4 = 40 \text{ m}$   
 (7) Width =  $(30 \div 2) - 9 = 6 \text{ meters}$   
 Side length =  $28 \div 4 = 7 \text{ meters}$   
 (8) The area =  $7 \times 7 = 49 \text{ Sq meters}$

### Sheet (4)

First : Choose the correct answer :

- a) 26                      b)  $7 \times 2 \times 4$                       c)  $2 \times 9$   
 d) 10                      e) 40

Second : Complete the following :

- a)  $6 \times 18 = 6 \times (10 + 8) = (6 \times 10) + (6 \times 8)$   
 b) 8 , 7                      c) 6  
 d) Side length                      e) 5 , 9

Third : answer the following :

- a) Find the result :  
 (1)  $40 + 8 = 48$                       (3) 8  
 (2) 42                      (4) 7
- b) The area =  $7 \times 7 = 49 \text{ Sq cm}$   
 The perimeter =  $7 \times 4 = 28 \text{ cm}$
- c) Width =  $(24 \div 2) - 9 = 12 - 9 = 3 \text{ cm}$

### Lesson (5)

#### (1) Write down the time :

- a) 9 : 00                      b) 7 : 12                      c) 10 : 21  
 d) 3 : 37                      e) 4 : 50                      f) 12 : 58

#### (2) Draw the hands :



### Homework

#### (1) Write down the time :

- a) 4 : 00                      b) 11 : 07                      c) 12 : 14  
 d) 7 : 20                      e) 9 : 26                      f) 1 : 32  
 g) 5 : 38                      h) 11 : 49                      i) 8 : 57

### (2) Draw the hands :



### Sheet (5)

First : Choose the correct answer :

- a) 60 798                      b)  $7 \times 15$                       c)  $3 \times 4$   
 d)  $40 + 32$                       e) 10 000

Second : Complete the following :

- a)  $7 + 7 + 7 + 7 + 7$   
 b)  $3 \times (2 + 8)$   
 c) (Length + Width)  $\times 2$   
 d) 48                      e) 5 000

Third : answer the following :

- a) The number of flats =  $10 \times 3 \times 4$   
 $= (10 \times 3) \times 4 = 30 \times 4 = 120 \text{ flats}$
- b) The perimeter =  $(7 + 3) \times 2$   
 $= 10 \times 2 = 20 \text{ cm}$
- c) 3 : 27 , 6 : 50

### Lesson (6)

- (1) Ali earns =  $(25 \times 3) + 20$   
 $= 75 + 20 = 95 \text{ LE}$
- (2) The number Markers =  $3 \times 6 = 18$   
 The number of students =  $18 - 16 = 2$
- (3) Number of each kind =  $18 \div 3 = 6$   
 The left =  $18 - 6 = 12 \text{ pieces}$
- (4) The number of crackers  
 $= (6 \times 10) + (1 \times 7) = 60 + 7 = 67$
- (5)  $12 - 8 = 4$  ,  $12 + 8 = 20$
- (6) Read and solve each problem

First strategy	Second strategy
$152 - 88 = 64$	$88 + \dots = 152$ ( 64 )



	First strategy	Second strategy
b)	$17 + 19 = 36$ $36 \div 4 = 9$	$(17 + 19) \div 4$ $= 36 \div 4 = 9$

### Homework

(1) Answer the following :

a)  $5 \times 3 = 15$  ,  $24 - 15 = 9$   
b)  $4 \times 15 = 60$  ,  $100 - 60 = 40$

$40 \div 20 = 2$  markers

c)  $40 - 10 = 30$  ,  $30 \div 10 = 3$

d)  $9 \times 2 = 18$  ,  $9 + 18 = 27$

(2)  $24 \div 4 = 6$        $24 \div 4 = 6$   
 $6 - 4 = 2$        $6 + 4 = 10$

(3)  $8 \times 3 = 24$        $3 \times 8 = 24$   
 $24 - 16 = 8$        $24 \div 16 = 40$

(4) Read and solve each problem :

a)	First strategy	Second strategy
	$4 \times 12 = 4 \times (10 + 2)$ $= (4 \times 10) + (4 \times 2)$ $= 40 + 8 = 48$	$4 \times 12 = 4 \times (2 \times 6)$ $= (4 \times 2) \times 6$ $= 8 \times 6 = 48$

b)	First strategy	Second strategy
	$12 + 8 = 20$ $20 \div 4 = 5$	$12 \div 4 = 3$ , $8 \div 4 = 2$ $3 + 2 = 5$

c)	First strategy	Second strategy
	$4 \times 10 = 40$ , $4 \times 8 = 32$ $40 + 32 = 72$	$(4 \times 10) + (4 \times 8)$ $= 4 \times 18$ $= 18 + 18 + 18 = 72$

### Sheet ( 5 )

First : Choose the correct answer :

- a) 98 765    b)  $6 \times 4$     c)  $12 \times 10$   
d)  $10 \times 5$     e) 69 250

Second : Complete the following :

- a) 50 , 400    b)  $9 + 9 + 9 + 9$   
c) 64    d)  $(5 \times 10) + (5 \times 9)$     e) 60

Third : answer the following :

a) The total number =  $6 \times (5 + 3)$   
 $(6 \times 5) + (6 \times 3) = 30 + 18 = 48$  birds

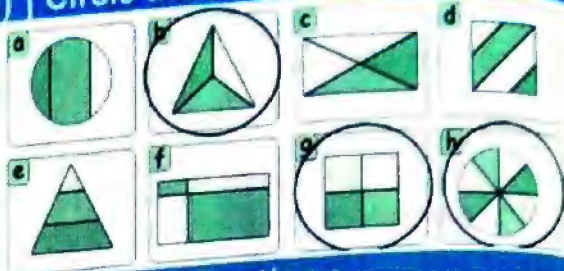
b) The perimeter  
 $= 5 + 3 + 4 + 2$   
 $= 14$  cm



## Chapter ( 2 )

### Lesson ( 1 )

(1) Circle the shape :



(2) Write the fraction :

- a)  $\frac{1}{2}$     b)  $\frac{2}{4}$     c)  $\frac{6}{8}$     d)  $\frac{2}{6}$

(3) Color according to the fraction :



(4) Complete the following table :

- a)  $\frac{1}{2}$  One half    e)  $\frac{3}{8}$  Three eighths  
b)  $\frac{2}{3}$  Two thirds    f)  $\frac{2}{9}$  Two ninths  
c)  $\frac{3}{4}$  Three fourths    g)  $\frac{4}{7}$  Four sevenths  
d)  $\frac{5}{6}$  Five sixths

(5) Write the fraction in words :

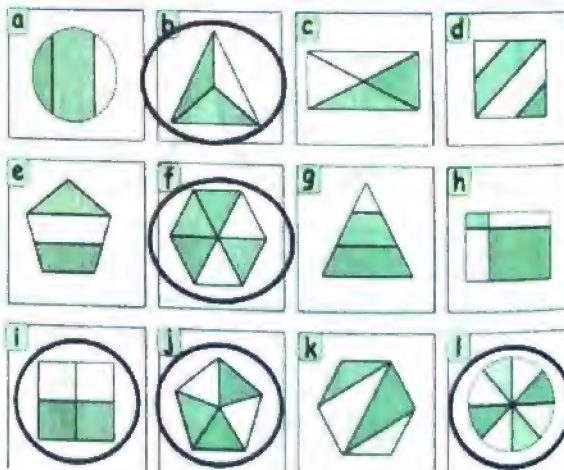
- a) One third    c) Three sevenths  
b) Two fifths    d) Five eighths

(6) Write the fractions in digits

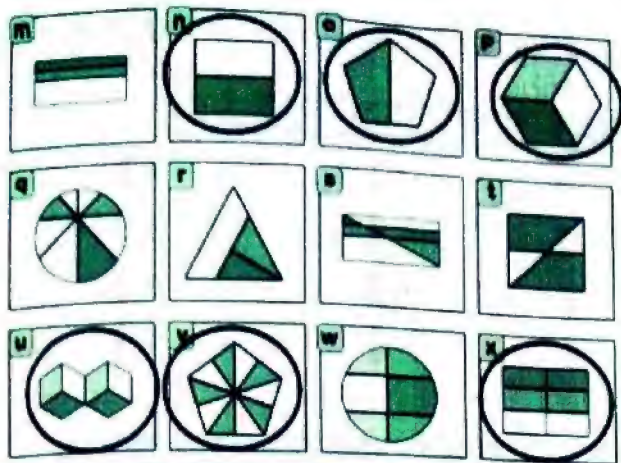
- a)  $\frac{3}{4}$     b)  $\frac{2}{9}$     c)  $\frac{5}{6}$     d)  $\frac{1}{2}$

### Homework

(1) Circle the shape :



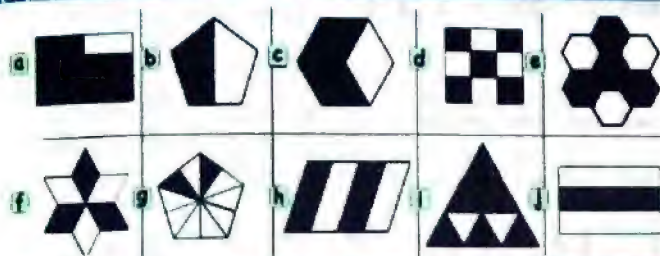




## (2) Write the fraction :

- a)  $\frac{2}{3}$    b)  $\frac{5}{9}$    c)  $\frac{2}{4}$    d)  $\frac{2}{6}$    e)  $\frac{2}{5}$   
 f)  $\frac{3}{4}$    g)  $\frac{4}{8}$    h)  $\frac{4}{6}$    i)  $\frac{8}{10}$    j)  $\frac{2}{3}$

## (3) Color according to the fraction :



## (4) Complete the following table :

- |                                  |                                  |
|----------------------------------|----------------------------------|
| a) $\frac{1}{2}$ , One half      | h) $\frac{1}{8}$ , One eighth    |
| b) $\frac{1}{3}$ , One third     | i) $\frac{5}{8}$ , Five eighths  |
| c) $\frac{2}{3}$ , Two thirds    | j) $\frac{3}{9}$ , Three ninths  |
| d) $\frac{1}{4}$ , One fourth    | k) $\frac{8}{9}$ , Eight ninths  |
| e) $\frac{3}{4}$ , Three quarter | l) $\frac{2}{7}$ , Two sevenths  |
| f) $\frac{2}{6}$ , Two sixths    | m) $\frac{4}{7}$ , Four sevenths |
| g) $\frac{4}{6}$ , Four sixths   | n) $\frac{6}{7}$ , Six sevenths  |

## (5) Write the fraction in words :

- |                  |                  |
|------------------|------------------|
| a) One third     | f) Six sevenths  |
| b) Two thirds    | g) Seven eighths |
| c) Three fourths | h) Eight ninths  |
| d) Four fifths   | i) One fourth    |
| e) Five sixths   | j) Two fifths    |

## (6) Write the fraction in digits

- a)  $\frac{1}{2}$    b)  $\frac{2}{4}$    c)  $\frac{3}{5}$    d)  $\frac{2}{6}$    e)  $\frac{4}{7}$   
 f)  $\frac{1}{8}$    g)  $\frac{3}{9}$    h)  $\frac{2}{3}$    i)  $\frac{5}{5}$    j)  $\frac{1}{4}$

## Sheet (1)

First : Choose the correct answer :

- a)  $\frac{3}{5}$    b) 9   c) 25 000  
 d)  $3 + 3$    e)  $(4 \times 5) \times 2$

Second : Complete the following :

- a) Two sevenths   b)  $6 \times 6$   
 c)  $8+8+8+8+8+8$    d) 52 324   e) 120

Third : answer the following :

- a) The area =  $3 \times 3 = 9$  Sq cm  
 The perimeter =  $3 \times 4 = 12$  cm  
 b) a)  $\frac{3}{4}$  = Three fourths   b)  $\frac{1}{3}$  = One third  
 c)  $42 \div 6 = 7$

## Lesson (2)

### (1) Use the fraction bar :

- a) 

$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$
---------------	---------------	---------------	---------------	---------------	---------------	---------------

  
 b) 

$\frac{1}{2}$	$\frac{1}{2}$
---------------	---------------

### (2) Complete using (< , = or > )

- a)  $\frac{1}{2}$  >  $\frac{1}{5}$    b)  $\frac{1}{3}$  >  $\frac{1}{6}$   
 c)  $\frac{1}{4}$  >  $\frac{1}{7}$    d)  $\frac{1}{8}$  >  $\frac{1}{9}$

### (3) Complete using (< , = or > )

- a) >   b) >   c) <  
 d) >   e) <   f) =

## Homework

### (1) Use fraction bar :

- a) 

$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$	$\frac{1}{7}$
---------------	---------------	---------------	---------------	---------------	---------------	---------------

  
 b) 

$\frac{1}{2}$	$\frac{1}{2}$
---------------	---------------

  
 c) 

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$
---------------	---------------	---------------	---------------

  
 d) 

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$
---------------	---------------	---------------	---------------	---------------	---------------

  
 e) 

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$
---------------	---------------	---------------




**(2) Write the fraction, then compare :**

- a)  $\frac{1}{2} > \frac{1}{7}$     b)  $\frac{1}{8} < \frac{1}{3}$     c)  $\frac{1}{4} > \frac{1}{6}$   
 d)  $\frac{1}{9} < \frac{1}{5}$     e)  $\frac{1}{2} > \frac{1}{7}$     f)  $\frac{1}{4} > \frac{1}{5}$     g)  $\frac{1}{6} < \frac{1}{3}$

**(3) Complete using < , = or > :**

- a) >    b) >    c) >    d) >    e) <  
 f) <    g) <    h) <    i) >    j) <  
 k) >    l) =    m) <    n) <

- (4)**  $\frac{1}{3} > \frac{1}{4}$  

Oil is more than water

**Sheet ( 2 )**

First : Choose the correct answer :

- a)  $\frac{7}{9}$     b)  $6 \times 2$     c)  $6 \times (7 \times 10)$   
 d)  $4 \times (10 + 8)$     e) <

Second : Complete the following :

- a) 3 , 7    b) 50  
 c) 8 , 9 ,  $40 + 45 = 85$     d) 3 000  
 e) Five eighths

Third : answer the following :

- a) Width =  $(12 \div 2) - 4 = 6 - 4 = 2$  m.  
 b)  $1 - \frac{2}{5} = \frac{5}{5} - \frac{2}{5} = \frac{3}{5}$   
 c)  $30 \div 6 = 5$

**Lesson ( 3 )**

**(1) Decide which would the best unit :**

- a) grams    b) grams    c) grams  
 d) grams    e) kilograms    f) kilograms

- (2)** a)  $\frac{3}{4}$     b)  $\frac{1}{4}$     c)  $\frac{2}{4}$

- (3)** a)  $\frac{1}{6}$     b)  $\frac{4}{6}$     c)  $\frac{1}{6}$

- (4)** Pink =  $\frac{1}{8}$   
 Red =  $\frac{7}{8}$



- (5)**    

**Homework**

**(1) Decide which would the best unit :**

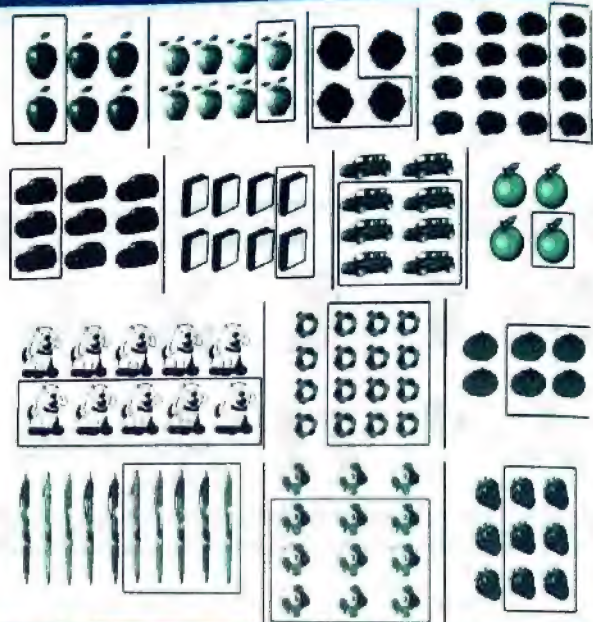
- a) grams    i) grams  
 b) kilograms    j) kilograms  
 c) grams    k) grams  
 d) kilograms    l) kilograms  
 e) grams    m) grams  
 f) grams    n) kilograms

- g) kilograms    o) kilograms  
 h) kilograms    q) grams

**(2) Complete the following :**

- a) 1  $\frac{6}{8}$     2  $\frac{2}{8}$     3  $\frac{4}{8}$   
 b) 1  $\frac{2}{6}$     2  $\frac{4}{6}$     3  $\frac{2}{6}$   
 c) 1  $\frac{2}{9}$     2  $\frac{6}{9}$     3  $\frac{1}{9}$   
 d) 1  $\frac{2}{8}$     2  $\frac{6}{8}$     3  $\frac{8}{8}$   
 e) 1  $\frac{3}{9}$     2  $\frac{3}{9}$     3  $\frac{6}{9}$     4  $\frac{3}{9}$     5  $\frac{6}{9}$

**(3) Circle according to the fraction :**



**Sheet ( 3 )**

First : Choose the correct answer :

- a) 60 796    b)  $4 \times 5$     c)  $16 \times 10$   
 d) 80 000    e) <

Second : Complete the following :

- a) Three eighths    b)  $\frac{5}{7}$     c) 50 , 250  
 d)  $6 + 6 + 6$     e) 44 432

Third : answer the following :

- a) ① 4    ②  $\frac{2}{4}$     ③  $\frac{1}{4}$     ④  $\frac{1}{4}$   
 b) ①  $\frac{2}{3}$     ②  $\frac{5}{9}$     ③  $\frac{2}{4}$

**Lesson ( 4 )**

**(1) Identify the error**

- a)  $\frac{1}{2}$     b)  $\frac{2}{3}$     c)  $\frac{3}{4}$     d)  $\frac{1}{5}$

**(2) Write the fraction then compare :**

- a)  $\frac{1}{2} > \frac{1}{2}$     b)  $\frac{1}{2} > \frac{1}{2}$     c)  $\frac{1}{3} < \frac{1}{3}$   
 d)  $\frac{1}{3} < \frac{1}{3}$     e) <    f) <



## Homework

### (1) Identify the error

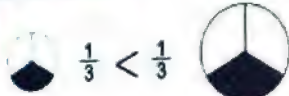
- a)  $\frac{1}{2}$       d)  $\frac{5}{8}$       g)  $\frac{2}{3}$       j)  $\frac{5}{9}$   
 b)  $\frac{1}{4}$       e)  $\frac{1}{4}$       h)  $\frac{3}{5}$       k)  $\frac{4}{6}$   
 c)  $\frac{3}{6}$       f)  $\frac{2}{4}$       i)  $\frac{3}{7}$       l)  $\frac{2}{5}$

### (2) Write the fraction then compare :

- a)  $\frac{1}{3} < \frac{1}{3}$     e)  $\frac{1}{6} < \frac{1}{6}$     i)  $\frac{1}{2} < \frac{1}{2}$     m)  $\frac{1}{2} < \frac{1}{2}$   
 b)  $\frac{1}{4} < \frac{1}{4}$     f)  $\frac{1}{7} > \frac{1}{7}$     j)  $\frac{1}{4} > \frac{1}{4}$     n)  $\frac{1}{3} > \frac{1}{3}$   
 c)  $\frac{2}{8} > \frac{2}{8}$     g)  $\frac{1}{9} < \frac{1}{9}$     k)  $\frac{1}{3} < \frac{1}{3}$     o)  $\frac{1}{4} < \frac{1}{4}$   
 d)  $\frac{1}{5} > \frac{1}{5}$     h)  $\frac{1}{2} < \frac{1}{2}$     l)  $\frac{1}{5} < \frac{1}{5}$     p)  $\frac{1}{3} > \frac{1}{3}$

### (3) Circle the correct answer :

- a) half of Saturday      b) half of an hour  
 c) half of watermelon    d) half of a cake  
 e) half of a swimming pool  
 f) half of a liter .

- (4)   $\frac{1}{3} < \frac{2}{3}$

- (5)  $1 = \frac{2}{2} = \frac{3}{3} = \frac{4}{4} = \frac{5}{5} = \frac{6}{6} = \frac{7}{7} = \frac{8}{8} = \frac{9}{9}$

## Sheet ( 4 )

First : Choose the correct answer :

- a) <      b) 5      c)  $3 \times 4$   
 d)  $5 \times 5$       e)  $3 \times 20$

Second : Complete the following :

- a) 6,  $12 + 24 = 36$       b) 6      c) 12100  
 d) 5      e)  $\frac{3}{4}$

Third : answer the following :

- a) 1)  $\frac{2}{8} > \frac{2}{8}$       2)  $\frac{1}{5} > \frac{1}{5}$   
 b) 1) 63      2) 5      c) 8  
 c) Ali ate 4 pieces < Ahmed ate 6 pieces

## Lesson ( 5 )

### (1) Complete :

- a) 8    b) 6    c) 2    d) 9    e) 6    f) 10  
 g)  $16 \div 2 = 8$     h)  $15 \div 3 = 5$     i)  $32 \div 4 = 8$

- (2)  $6 \div 6 = 1$

- (3)  $\frac{1}{9}$      $\frac{1}{8}$      $\frac{1}{3}$      $\frac{1}{2}$

- (4)  $\frac{1}{2}$  of an hour =  $60 \div 2 = 30$  minutes  
 $\frac{1}{4}$  of an hour =  $60 \div 4 = 15$  minutes  
 $30 + 15 = 45$  minutes

- (5) a)   $\frac{1}{2} > \frac{1}{2}$   
 b)   $\frac{1}{4} < \frac{1}{4}$

## Homework

### (1) Complete :

- a) 6    b) 7    c) 32    d) 18    e) 2  
 f) 8    g) 9    h) 6    i) 8    j) 42  
 k) 81    l) 9    m) 7    n) 2

### (2) Complete :

- a)  $20 \div 2 = 10$       b)  $12 \div 3 = 4$   
 c)  $28 \div 4 = 7$       d)  $35 \div 5 = 7$   
 e)  $\frac{1}{6}$  , 54 , 9      f)  $\frac{1}{7}$  , 63 , 9  
 g)  $\frac{1}{8}$  , 64 , 8

- (3)  $6 \div 6 = 1$  ,       $\frac{6}{6} = 1$

- (4)  $\frac{1}{3}$  ,  $24 \div 3 = 8$

- (5)  $45 \div 5 = 9$

- (6) a) The order :  $\frac{1}{9}$  ,  $\frac{1}{7}$  ,  $\frac{1}{5}$  ,  $\frac{1}{3}$

- b) The order :  $\frac{1}{6}$  ,  $\frac{1}{4}$  ,  $\frac{1}{2}$  , 1

- (7) a) The order : 1 ,  $\frac{1}{6}$  ,  $\frac{1}{7}$  ,  $\frac{1}{9}$




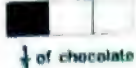


- b) The order :  $\frac{1}{3}$  ,  $\frac{1}{4}$  ,  $\frac{1}{5}$  ,  $\frac{1}{8}$

- (8)  $\frac{1}{3}$  of an hour = 20 minutes

- $\frac{1}{4}$  of an hour = 15 minutes

- $20 + 15 = 35$  minutes



- (9) a)  $\frac{1}{4}$  the cake   $<$    $\frac{3}{4}$  the cake
- b)  $\frac{1}{4}$  of chocolate   $<$    $\frac{3}{4}$  of chocolate
- c)  $\frac{1}{2}$  an orange   $>$    $\frac{1}{4}$  of an orange

### Sheet (5)

First : Choose the correct answer :

- a) 6 b)  $5 \times (10 + 2)$  c) 48 d)  $2 \times 3 \times 4$  e) 7 000

Second : Complete the following :

- a) 9, 9,  $36 + 45 = 81$  b) 15  
c) 50 d)  $40 \div 5 = 8$  e) 9

Third : answer the following :

- a) The order :  $\frac{1}{9}, \frac{1}{7}, \frac{1}{4}, 1$   
b) Time of Mathematics = 20 min  
Time of Arabic = 15 minutes  
Time of Mathematics > Arabic

### Chapter (3)

#### Lesson (1)

(1) Write the fraction on the number line

- a)  $\frac{1}{2}$  b)  $\frac{2}{3}$  c)  $\frac{4}{5}$  d)  $\frac{1}{4}$







(2) Use a number line to represent the following fractions :

- a)  $\frac{1}{3}$    
b)  $\frac{3}{4}$    
c)  $\frac{5}{6}$  

- (3) 

- (4) 

(5) Complete The following table ( as in the example )

	Fraction	Divide	Represent on the number line
a	$\frac{2}{6}$		
b	$\frac{1}{3}$		
c	$\frac{4}{7}$		

### Homework

(1) Write the fraction on the number line

- a)  $\frac{1}{2}$  b)  $\frac{2}{3}$  c)  $\frac{2}{4}$  d)  $\frac{2}{9}$   
e)  $\frac{4}{5}$  f)  $\frac{3}{6}$  g)  $\frac{3}{7}$  h)  $\frac{7}{8}$

(2) Use a number line to represent the following fractions
















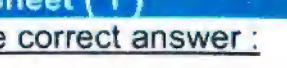
- a)  $\frac{1}{3}$    
b)  $\frac{1}{2}$    
c)  $\frac{3}{4}$  

- d)  $\frac{1}{4}$    
e)  $\frac{5}{8}$    
f)  $\frac{2}{5}$  

(3) Use the number line :

- a)   
b)   
c)   
d) 

(4) Complete The following table

	Fraction	Divide	Represent on the number line
a	$\frac{3}{4}$		
b	$\frac{1}{2}$		
c	$\frac{1}{3}$		
d	$\frac{5}{8}$		
e	$\frac{2}{6}$		
f	$\frac{2}{4}$		
g	$\frac{4}{7}$		
h	$\frac{1}{5}$		

### Sheet (1)

First : Choose the correct answer :

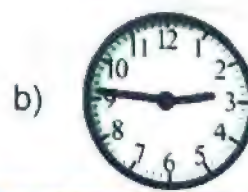
- a)  $\frac{2}{4}$  b)  $>$  c)  $9 + 9$   
d)  $4 \times 4$  e)  $32 \times 10$

Second : Complete the following :

- a) 5 b) 5, 5, 10, 60 c) 47 000  
d)  $5 + 5 + 5$  e) 6

Third : Answer the following :

- a) 1)  $\frac{1}{3}$  2)  $15 + 3 = 5$   
3) 



### Lesson (2)

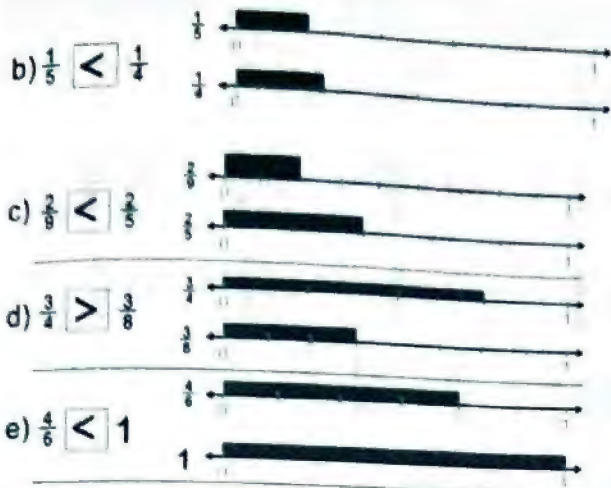
(1) Represent each of the following fractions on a number line

- a)  $\frac{3}{5}$    
b)  $\frac{1}{6}$    
c)  $\frac{6}{8}$  

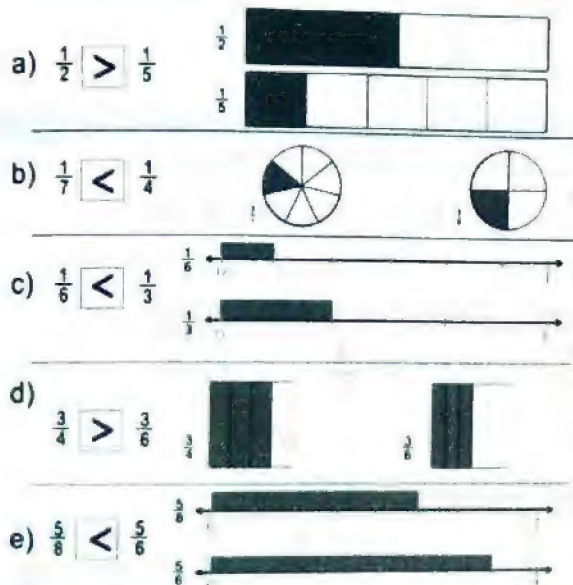
(2) Represent each of the following fractions on the number line, and then complete using ( $<$ ,  $=$  or  $>$ )

- a)  $\frac{1}{6}$   $<$   $\frac{1}{2}$    
 $\frac{1}{2}$  



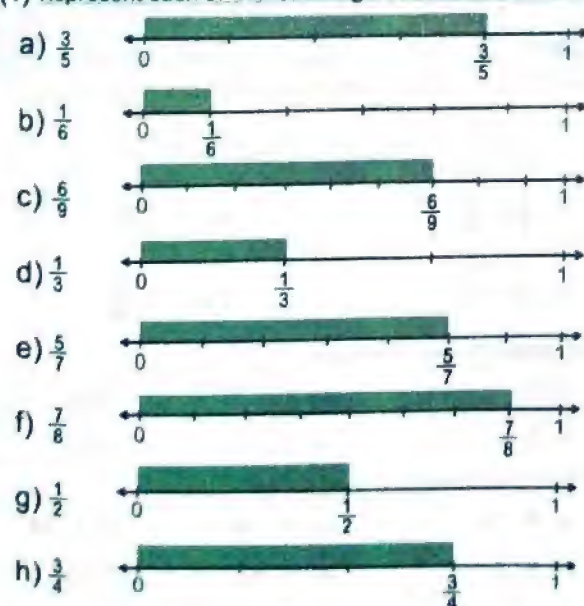


(3) Draw a model for each fraction and then compare using ( $<$ ,  $=$  or  $>$ )  
You may draw number lines, pictures or models to represent:

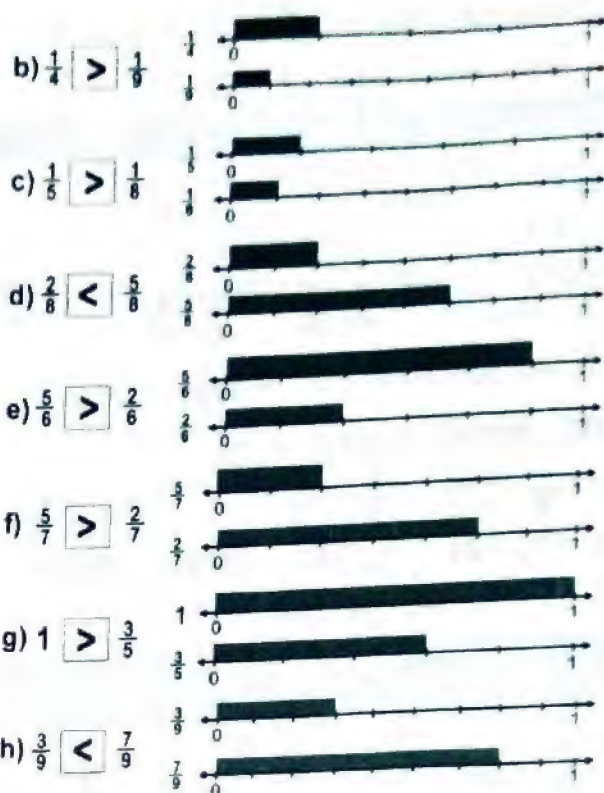


## Homework

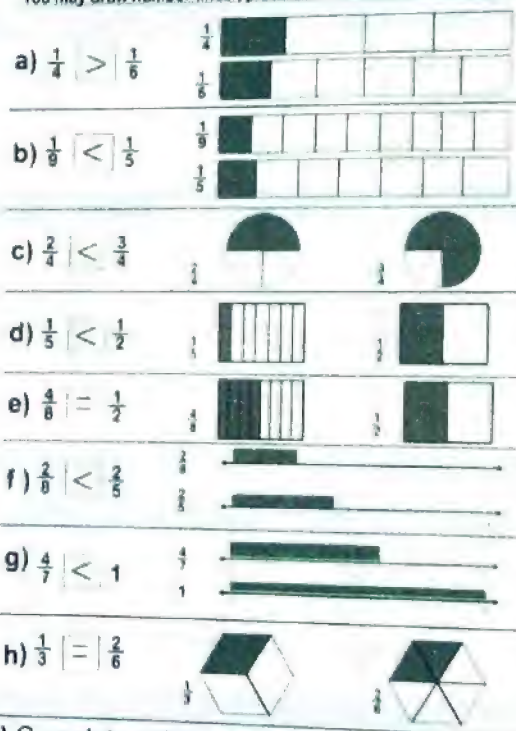
(1) Represent each of the following fractions on a number line



(2) Represent each of the following fractions on the number line and then complete using ( $<$ ,  $=$  or  $>$ )



(3) Draw a model for each fraction and then compare using ( $<$ ,  $=$  or  $>$ )  
You may draw number lines, pictures or models to represent:



(4) Complete using  $<$ ,  $=$  or  $>$

- a)  $>$     b)  $<$     c)  $>$     d)  $<$   
e)  $>$     f)  $<$     g)  $<$     h)  $>$

(5) Arrange the following fractions:

- a) Ascending order:  $\frac{1}{6}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$   
Descending order:  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{6}$   
b) Ascending order:  $\frac{3}{7}, \frac{4}{7}, \frac{5}{7}, \frac{6}{7}$   
Descending order:  $\frac{6}{7}, \frac{5}{7}, \frac{4}{7}, \frac{3}{7}$



c) Ascending order :  $\frac{2}{8}, \frac{2}{5}, \frac{2}{4}, 1$

Descending order :  $1, \frac{2}{4}, \frac{2}{5}, \frac{2}{8}$

### Sheet ( 2 )

First : Choose the correct answer :

- a) <      b) <      c)  $4 \times 25$   
d)  $6 \times 3$       e)  $5 \times (10 + 2)$

Second : Complete the following :

- a) 10 234      b) 56      c) 42  
d) 6, 4, 10, 70      e)  $\frac{5}{7}$

Third : Answer the following :

- a)  $\frac{1}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}$   
b) 75 124, 75 214, 75 412, 75 421  
c)  $8 \times 6 = 48$  marbles.

### Lesson ( 3 )

(1) Solve :

- a)  $\frac{3}{4}$       b)  $\frac{4}{5}$       c)  $\frac{5}{7}$       d)  $\frac{7}{8}$   
e)  $\frac{4}{8}$       f)  $\frac{2}{5}$       g)  $\frac{0}{6}$       h)  $\frac{1}{9}$

(2) Find the result :

- a)  $\frac{2}{4}$       b)  $\frac{5}{6}$       c)  $\frac{7}{7} = 1$       d)  $\frac{6}{9}$   
e)  $\frac{4}{6}$       f)  $\frac{4}{5}$       g)  $\frac{3}{7}$       h)  $\frac{0}{8} = 0$

(3) Complete the following :

- a)  $\frac{2}{6}$       b)  $\frac{4}{8}$       c)  $\frac{1}{5}$       d)  $\frac{6}{9}$   
e)  $\frac{2}{3}$       f)  $\frac{3}{5}$       g)  $\frac{5}{8}$       h)  $\frac{5}{7}$

(4)  $\frac{1}{6} + \frac{3}{6} = \frac{4}{6}$

### Homework

(1) Solve :

- a)  $\frac{1}{3}$       b)  $\frac{2}{6}$       c)  $\frac{4}{9}$       d)  $\frac{1}{2}$   
e)  $\frac{2}{4}$       f)  $\frac{2}{5}$       g)  $\frac{0}{7} = 0$       h)  $\frac{4}{8}$

Solve :

- a)  $\frac{4}{5}$       b)  $\frac{4}{6}$       c)  $\frac{7}{8}$       d)  $\frac{3}{3}$   
e)  $\frac{2}{3}$       f)  $\frac{3}{4}$       g)  $\frac{4}{5}$       h)  $\frac{7}{9}$

(2) Find the result :

- a)  $\frac{2}{2} = 1$       b)  $\frac{6}{8}$       c)  $\frac{2}{3}$       d)  $\frac{9}{9} = 1$   
e)  $\frac{3}{4}$       f)  $\frac{4}{5}$       g)  $\frac{0}{5} = 0$       h)  $\frac{6}{7}$   
i)  $\frac{1}{6}$       j)  $\frac{3}{6}$       k)  $\frac{4}{7}$       l)  $\frac{6}{9}$

(3) Complete the following :

- a)  $\frac{3}{9}$       b)  $\frac{3}{8}$       c)  $\frac{4}{7}$       d)  $\frac{6}{9}$   
e)  $\frac{1}{5}$       f)  $\frac{6}{8}$       g)  $\frac{4}{8}$       h)  $\frac{2}{6}$   
i)  $\frac{2}{4}$       j)  $\frac{4}{7}$       k)  $\frac{3}{3}$       l)  $\frac{7}{7}$

(4)  $\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$

(5)  $\frac{3}{4} > \frac{1}{2}$

(6)  $\frac{5}{6} - \frac{5}{6} = 0$

(7)  $\frac{2}{8} + \frac{2}{8} = \frac{4}{8}$

### Lesson ( 3 )

First : Choose the correct answer :

- a)  $\frac{1}{7}$       b) >      c)  $3 \times 10$   
d)  $6 \times 10$       e) <

Second : Complete the following :

- a)  $\frac{4}{4}$       b)  $\frac{4}{9}$       c) 9  
d) 8      e)  $\frac{5}{5}$

Third : Answer the following :

- a)  $\frac{4}{9}$       b)  $\frac{4}{5}, \frac{4}{6}, \frac{4}{7}, \frac{4}{9}$   
c)  $1 - \frac{1}{4} = \frac{3}{4}$

### Chapter ( 4 )

#### Lesson ( 1 )

(1) Complete. ( Use the model or number line shown )

- a)  $\frac{1}{3} = \frac{2}{6}$       b)  $\frac{3}{6} = \frac{6}{12}$   
c)  $\frac{2}{4} = \frac{4}{8}$       d)  $\frac{2}{3} = \frac{6}{9}$   
e)  $\frac{1}{5} = \frac{2}{10}$       f)  $\frac{1}{2} = \frac{4}{8}$

(2) Complete the following :

- a) 12      b) 3      c) 6  
d) 3      e) 2      f) 2

(3) Complete the following :

- a) 4, 15      b) 16, 15      c) 1, 24  
d) 6, 3      e) 6, 5      f) 16, 3

- (4) a)  $\frac{1}{2}$       b)  $\frac{1}{2}$       c)



- (5) 4





## Homework

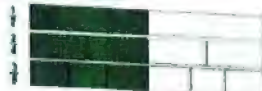


(1) Complete. ( Use the model or number line shown )

a)  $\frac{1}{2} = \frac{2}{4}$       b)  $\frac{2}{3} = \frac{4}{6}$       c)  $\frac{6}{10} = \frac{3}{5}$   
 d)  $\frac{6}{9} = \frac{2}{3}$       e)  $\frac{1}{2} = \frac{4}{8}$       f)  $1 = \frac{10}{10}$   
 g)  $\frac{1}{3} = \frac{3}{9}$       h)  $\frac{2}{4} = \frac{3}{6}$

(2) Complete : ( Using the number lines shown )

a)  $\frac{1}{2} = \frac{2}{4}$       b)  $\frac{1}{2} = \frac{3}{6}$       c)  $\frac{2}{3} = \frac{6}{9}$   
 d)  $\frac{6}{8} = \frac{3}{4}$       e)  $\frac{4}{6} = \frac{6}{9}$       f)  $\frac{5}{5} = 1$   
 g)  $\frac{4}{5} = \frac{8}{10}$       h)  $\frac{1}{2} = \frac{5}{10}$

(3) Use your fraction models to find :

a)  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$         
 b)  $\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$         
 c)  $\frac{3}{4} = \frac{6}{8} = \frac{9}{12}$       




(4) Complete the following :

a) 10      b) 12      c) 3      d) 3      e) 9      f) 5  
 g) 4      h) 2      i) 24      j) 20      k) 5      l) 14

(5) Complete the following :

a) 2, 8      b) 15, 8      c) 2, 18      d) 2, 24  
 e) 4, 14      f) 7, 30      g) 5, 6      h) 6, 2  
 i) 6, 3      j) 1, 10      k) 16, 20      l) 30, 3

(6) Complete :

a) 1) 2      2)  $\frac{2}{8}$       3)  $\frac{1}{4} = \frac{2}{8}$         
 b) 1)  $\frac{6}{3} = 2$       2)  $\frac{2}{6}$       3)  $\frac{1}{3} = \frac{2}{6}$         
 b) 1)  $10 \div 2 = 5$       2)  $\frac{5}{10}$       3)  $\frac{1}{2} = \frac{5}{10}$       

## Sheet ( 1 )

First : Choose the correct answer :

a) Hundred      b)  $2 \times 3 \times 3$       c)  $7 \times 3 \times 4$   
 d)  $\frac{5}{6}$       e)  $\frac{3}{5}$

Second : Complete the following :

a) 2      b) 24, 2      c) 26 500  
 d) 7      e) 24

Third : Answer the following :

a)  $\frac{4}{9}, \frac{4}{7}, \frac{4}{5}, 1$

b)  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$

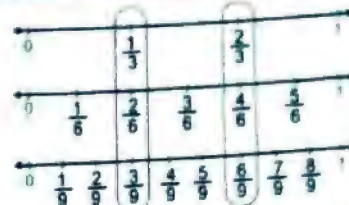
c) 9 : 22

## Lesson ( 2 )

(1) Complete the following fraction patterns.

(a) 2, 6, 4      The numerator increases by 1  
    The denominator increases by 2  
 (b) 2, 9, 12      The numerator increases by 1  
    The denominator increases by 3  
 (c) 10, 6, 20      The numerator increases by 1  
    The denominator increases by 5

(2) Use the number lines shown, then write equivalent fractions



a)  $\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$

b)  $\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$

(3)  $\frac{2}{4} = \frac{4}{8}$

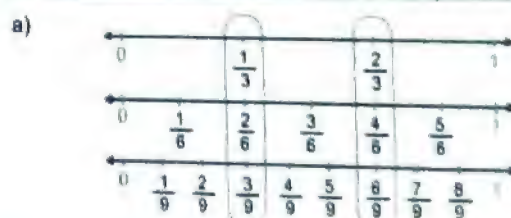


## Homework

(1) Complete the following fraction patterns.

a) 2, 12, 4, 16      The numerator increases by 1  
    The denominator increases by 4  
 b) 4, 9, 8, 12      The numerator increases by 2  
    The denominator increases by 3  
 c) 10, 3, 4, 20      The numerator increases by 1  
    The denominator increases by 5  
 d) 2, 6, 4      The numerator increases by 1  
    The denominator increases by 2  
 e) 14, 6, 8, 28      The numerator increases by 2  
    The denominator increases by 7  
 f) 10, 6, 8, 20      The numerator increases by 2  
    The denominator increases by 5

(2) Use the number lines shown, then write equivalent fractions



①  $\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$

②  $\frac{2}{3} = \frac{4}{6} = \frac{6}{9}$

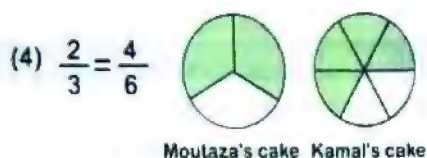
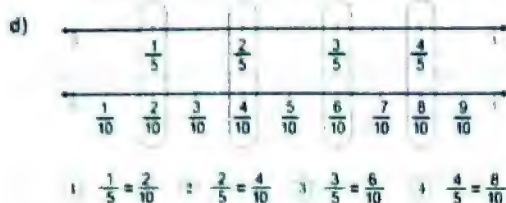
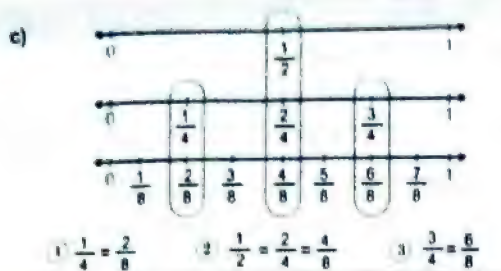


1.  $\frac{1}{4} = \frac{2}{8} = \frac{3}{12}$

2.  $\frac{2}{4} = \frac{4}{8} = \frac{6}{12}$

3.  $\frac{3}{4} = \frac{6}{8} = \frac{9}{12}$





### Sheet (2)

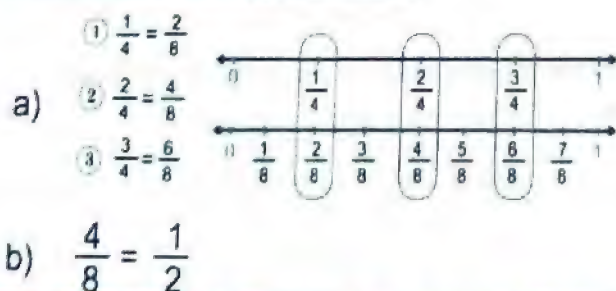
First : Choose the correct answer :

- a)  $\frac{1}{4}$     b) 11 000    c)  $3 \times (4 + 5)$   
 d) 7    e)  $\frac{5}{7}$

Second : Complete the following :

- a)  $4 \times 5$     b) 7, 5, 3    c)  $\frac{5}{5} = 1$   
 d) 3, 6    e) 9, 4, 12

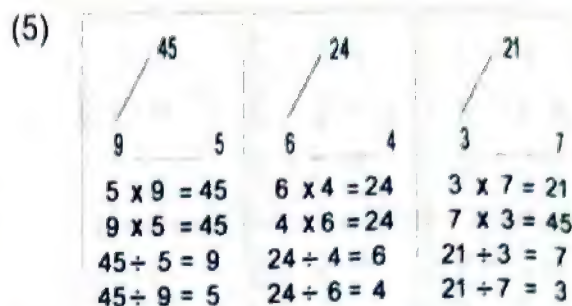
Third : Answer the following :



### Lesson (3)

- (1)  $18 \div 6 = 3$  pieces  
 (2)  $20 \div 6 = 5$  figs  
 (3)  $36 \div 6 = 6$  toys  
 (4) Ahmed has LE 42 . He wants to distribute the money equally among 6 sons. How much money should each son receive ?

( You can write the problem in multiple ways )



(6) Use the opposite figure :

- a) The area =  $4 \times 4 = 16$  Sq cm  
 The perimeter =  $4 \times 4 = 16$  cm  
 b) The area =  $7 \times 3 = 21$  Sq cm  
 The perimeter =  $(3 + 7) \times 2 = 20$  cm  
 c) 5 cm , 5 cm  
 The area =  $5 \times 5 = 25$  Sq cm  
 d) 8 cm  
 The perimeter =  $(8 + 2) \times 2 = 20$  cm

### Homework

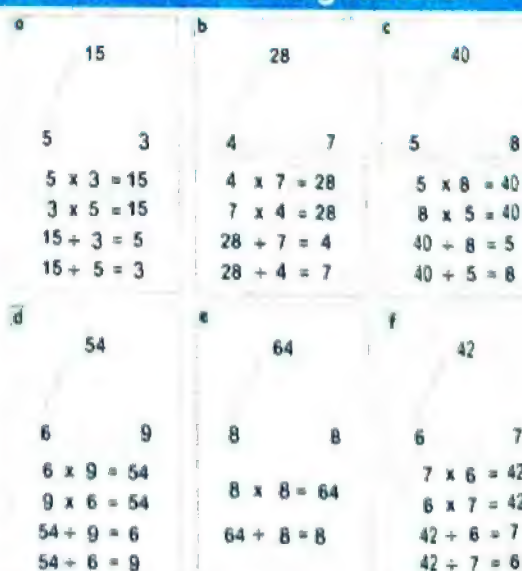
(1) Answer the following

- a)  $28 \div 7 = 4$  crayons  
 b)  $36 \div 6 = 6$  toys  
 c)  $18 \div 2 = 9$  people  
 d)  $28 \div 4 = 7$  sets  
 e)  $40 \div 5 = 8$  marbles  
 f)  $14 \div 2 = 7$  days  
 g)  $81 \div 9 = 9$  groups

(2) Write a story problem :

- a) Answer yourself  
 b) Answer yourself  
 c) Answer yourself

(3) Find the missing factors :





**(4) Use the opposite figure to complete**

- a) The area =  $5 \times 5 = 25$  Sq cm  
The perimeter =  $5 \times 4 = 20$  cm
- b) The area =  $7 \times 7 = 49$  Sq cm  
The perimeter =  $7 \times 4 = 28$  cm
- c) The area =  $3 \times 3 = 9$  Sq cm  
The perimeter =  $3 \times 4 = 12$  cm
- d) The area =  $8 \times 5 = 40$  Sq cm  
The perimeter =  $(8+5) \times 2 = 26$  cm
- e) The area =  $4 \times 2 = 8$  Sq cm  
The perimeter =  $(4+2) \times 4 = 12$  cm
- f) The area =  $5 \times 3 = 15$  Sq cm  
The perimeter =  $(5+3) \times 2 = 16$  cm

**(5) Use the opposite figure to complete**

- a) 3 cm, 3 cm  
The perimeter =  $3 \times 4 = 12$  cm
- b) 6 cm  
The area =  $6 \times 6 = 36$  Sq cm
- c) 8 cm  
The perimeter =  $(8 + 4) \times 2 = 24$  cm
- d) 2 cm  
The perimeter =  $(9 + 2) \times 2 = 22$  cm
- e) 7 m, The area =  $7 \times 5 = 35$  sq cm

**Sheet ( 2 )**First : Choose the correct answer :

- a) 95 095      b)  $6 \times 3$   
c)  $\frac{1}{5}$       d)  $\frac{2}{5}$       e)  $6 \times 10$

Second : Complete the following :

- a) 8      b)  $\frac{4}{8}$       c) side length  $\times 4$   
d)  $10 + 10 + 10$       e) 7

Third : Answer the following :

- a) 1)  $4 \times 8 = 32$       3)  $32 \div 8 = 4$   
2)  $8 \times 4 = 32$       4)  $32 \div 4 = 8$
- b) The area =  $5 \times 5 = 25$  Sq cm  
The perimeter =  $5 \times 4 = 20$  cm
- c)  $40 \div 5 = 8$  rows

**Chapter ( 5 )****Lesson ( 1 )****(1) Answer yourself****(2) Complete fact family**

- a)  $5 \times 9 = 45$        $45 \div 5 = 9$        $45$   
 $9 \times 5 = 45$        $45 \div 9 = 5$        $5$        $9$
- b)  $7 \times 4 = 28$        $28 \div 7 = 4$        $28$   
 $4 \times 7 = 28$        $28 \div 4 = 7$        $7$        $4$

**(3) Read each story problem :**

- a) .....  $\times 5 = 20$  ,  $20 \div 5 = 4$   
b) .....  $\div 9 = 2$  ,  $9 \times 2 = 18$   
c) .....  $\times 8 = 24$  ,  $24 \div 8 = 3$

**Homework****(1) Answer yourself****(2) Choose the correct answer :**

- a)  $8 \times 3$       b)  $8 + 8$       c)  $6 \times 2$   
d)  $>$       e)  $=$       f) 10  
g) 8      h) 28      i) 7      j) 6

**(3) Complete the following :**

- a)  $4 \times 8 = 32$       b)  $8 + 8 + 8 + 8 + 8 = 40$   
c) 8 , 16      d) 10 , 40      e) 520  
f) 4      g) 32      h) 10  
i)  $8 \times 5 \times 10 = 40 \times 10 = 400$

**(4) Use every two numbers to complete :**

- a) 1)  $5 \times 7 = 35$       2)  $35 \div 5 = 7$   
3)  $7 \times 5 = 35$       4)  $35 \div 7 = 5$
- b) 1)  $3 \times 8 = 24$       2)  $24 \div 3 = 8$   
3)  $8 \times 3 = 27$       4)  $24 \div 8 = 3$
- c) 1)  $9 \times 4 = 36$       2)  $36 \div 4 = 9$   
3)  $4 \times 9 = 36$       4)  $36 \div 9 = 4$
- d) 1)  $6 \times 2 = 12$       2)  $12 \div 2 = 6$   
3)  $2 \times 6 = 12$       4)  $12 \div 6 = 2$
- e) 1)  $8 \times 7 = 56$       2)  $56 \div 8 = 7$   
3)  $7 \times 8 = 56$       4)  $56 \div 7 = 8$

**(5) Read each story problem :**

- a) .....  $\times 9 = 81$  ,  $81 \div 9 = 9$   
b) .....  $\times 3 = 27$  ,  $27 \div 3 = 9$   
c) .....  $\times 4 = 16$  ,  $16 \div 4 = 4$   
d) .....  $\times 6 = 48$  ,  $48 \div 6 = 8$

**(6) Write a multiplication story problem :  
Answer yourself**

There are many solution that differ  
from one student to another



## Sheet ( 1 )

**First : Choose the correct answer :**

- a) 12                      b) 4                      c) 200  
d)  $7 \times (10 + 5)$                       e) <

**Second : Complete the following :**

- a)  $4 \times 5$  , 20 , 160                      b) 105 050  
c) 35 , 35 , 35                      d)  $\frac{1}{5}$                       e)  $\frac{8}{9}$

**Third : Answer the following :**

- a) 1)  $(6 \times 10) + (6 \times 5) = 90$                       3) 8  
2)  $(2 \times 4) \times 5 = 8 \times 5 = 40$                       4) 6  
b) The perimeter =  $(9 + 2) \times 2 = 22$  cm  
c)  $(4 \times 70) + (4 \times 130)$   
 $= 4 \times (70 + 130) = 4 \times 200 = 800$  gm

## Lesson ( 2 )

(1) Completet the following table :

The side length	8 cm	5 cm	9 cm
The perimeter	$8 \times 4 = 32$ cm	20 cm	$9 \times 4 = 36$ cm
The area	$8 \times 8 = 36$ Sq cm	$5 \times 5 = 25$ Sq cm	81 square cm

(2) Completet the following table :

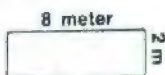
The length	The width	The perimeter of the rectangle	The area of the rectangle
7 cm	5 cm	$(7 + 5) \times 2 = 24$ cm	$7 \times 5 = 35$ square unit
10 cm	3 cm	26 cm	$10 \times 3 = 30$ square unit
6 cm	5 cm	22 cm	$6 \times 5 = 30$ square unit
8 cm	9 cm	$(8 + 9) \times 2 = 34$ cm	72 square cm
11 cm	6 cm	$(11 + 6) \times 2 = 34$ cm	66 square cm

(3) Read the following problems.

- (a) The Perimeter =  $8 \times 4 = 32$  cm  
The Area =  $8 \times 8 = 64$  Sq cm



- (b) The Perimeter =  $(8 + 2) \times 2 = 10 \times 2 = 20$  cm  
The Area =  $8 \times 2 = 16$  Sq cm



## Homework

(1) Complete the following table :

(1) Completet the following table :

	The side length	The perimeter of the square	The area of the square
a)	6 cm	$6 \times 4 = 24$ cm	$6 \times 6 = 36$ Sq cm
b)	8 cm	$8 \times 4 = 32$ cm	$8 \times 8 = 64$ Sq cm
c)	7 cm	28 cm	$7 \times 7 = 49$ Sq cm
d)	5 cm	20 cm	$5 \times 5 = 25$ Sq cm
e)	5 cm	$5 \times 4 = 20$ cm	25 Sq cm
f)	9 cm	$9 \times 4 = 36$ cm	81 Sq cm

(2) Read the following problems.

- a) The perimeter =  $8 \times 4 = 32$  cm  
The area =  $8 \times 8 = 64$  Sq cm  
b) The perimeter =  $10 \times 4 = 40$  cm  
The area =  $10 \times 10 = 100$  Sq cm

(2) Completet the following table :

	The length	The width	The perimeter of the rectangle	The area of the rectangle
a	5 cm	3 cm	$(5 + 3) \times 2 = 16$ cm	$5 \times 3 = 15$ Sq cm
b	4 cm	7 cm	$(4 + 7) \times 2 = 22$ cm	$4 \times 7 = 28$ Sq cm
c	7 cm	6 cm	$(7 + 6) \times 2 = 26$ cm	42 Sq cm
d	9 cm	7 cm	$(9 + 7) \times 2 = 32$ cm	63 Sq cm
e	9 cm	8 cm	$(9 + 8) \times 2 = 34$ cm	72 Sq cm
f	9 cm	5 cm	$(9 + 5) \times 2 = 28$ cm	45 Sq cm
g	5 cm	4 cm	18 cm	$5 \times 4 = 20$ Sq cm
h	7 cm	10 cm	34 cm	$7 \times 10 = 70$ Sq cm
i	7 cm	4 cm	22 cm	$7 \times 4 = 28$ Sq cm
j	12 cm	3 cm	30 cm	$12 \times 3 = 36$ Sq cm

(4) Read the following :

- a) The perimeter =  $(8+2) \times 2 = 10 \times 2 = 20$  m  
The area =  $8 \times 2 = 16$  Sq m  
b) The perimeter =  $(7+4) \times 2 = 11 \times 2 = 22$  m  
The area =  $7 \times 4 = 28$  Sq m  
(5) The width =  $(26 \div 2) - 8 = 13 - 2 = 5$  m  
The area =  $8 \times 5 = 40$  Sq cm  
(6) The length =  $36 \div 4 = 9$  cm  
The perimeter =  $(9 + 4) \times 2$   
 $= 13 \times 2 = 26$  cm  
(7)  $36 = 6 \times 6$   
The side length = 6 cm  
The perimeter =  $6 \times 4 = 24$  cm  
(8) The side length =  $40 \div 4 = 10$  cm  
The area =  $10 \times 10 = 100$  Sq cm  
(9) Length =  $(44 \div 2) - 10 = 22 - 10 = 12$  cm  
The area =  $12 \times 10 = 120$  Sq cm

## Sheet ( 2 )

**First : Choose the correct answer :**

- a) <                      b)  $10 + 10$                       c)  $8 \times (4 \times 5)$   
d) 6                      e) X

**Second : Complete the following :**

- a) 16                      b) 8                      c) 9 , 54  
d)  $\frac{4}{4} = 1$                       e) 9 , 4 , 12

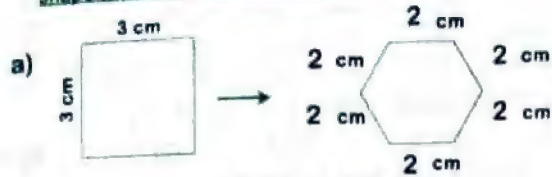
**Third : Answer the following :**

- a) 1) 7 093                      3) 96  
2) 4 922                      4) 10 , 50  
b) 21 , 48 , 68 , 72 , 90  
c) The perimeter =  $(7 + 2) \times 2 = 18$  cm  
The area =  $7 \times 2 = 14$  Sq cm

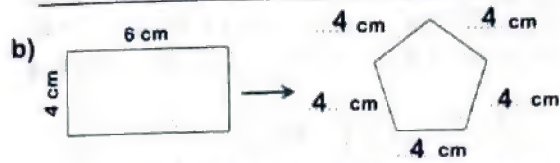


## Lesson (3)

- (1) Find the perimeter of each of the following shapes, and then find the appropriate dimensions for the opposite shape to have the same perimeter.



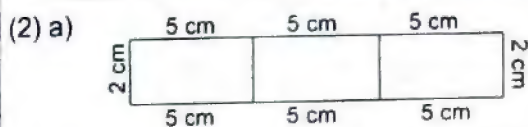
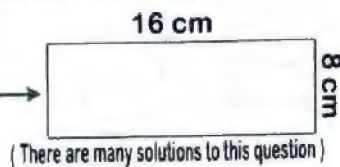
The perimeter =  $3 \times 4 = 12$  cm



The perimeter =  $(6 + 4) \times 2 = 10 \times 2 = 20$  cm

- c) The side lengths of a triangle are 20 cm, 20 cm and 8 cm. Then its perimeter =  $20 + 20 + 8 = 48$  cm

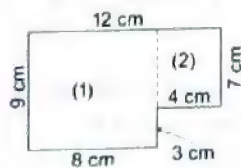
Draw a rectangle with the same perimeter. Shows the lengths of its sides on the drawing



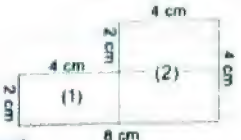
- b) The perimeter =  $(5 + 2) \times 2 = 14$  cm  
c) The area =  $5 \times 2 = 10$  Sq cm  
d) The perimeter =  $(15 + 2) \times 2 = 34$  cm  
e) The area =  $10 \times 3 = 30$  Sq cm

- (3) The perimeter =  $4 + 5 + 4 + 3 + 7 + 5 + 2 + 3 = 33$  cm

- (4) The area of part (1) =  $9 \times 8 = 72$  Sq cm  
The area of part (2) =  $7 \times 4 = 28$  Sq cm  
The total area =  $72 + 28 = 100$  Sq cm



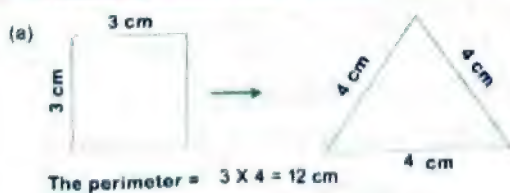
- (5) The area of part (1) =  $4 \times 2 = 8$  Sq cm  
The area of part (2) =  $4 \times 4 = 16$  Sq cm  
The total area =  $8 + 16 = 24$  Sq cm



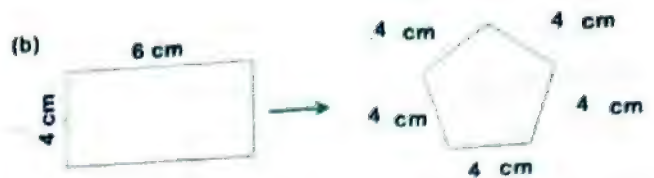
(There are several solutions to this question)

## Homework

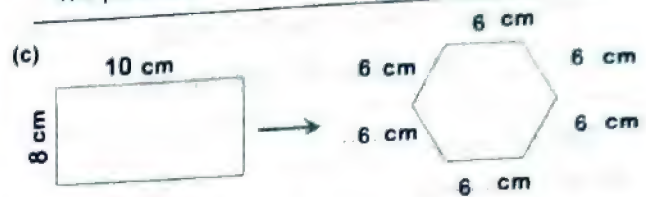
- (1) Find the perimeter of each of the following shapes.



The perimeter =  $3 \times 4 = 12$  cm



The perimeter =  $4 \times 5 = 20$  cm



The perimeter =  $(10 + 8) \times 2 = 36$  cm



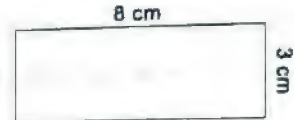
The perimeter =  $7 + 6 + 5 = 18$  cm




The perimeter =  $8 + 7 + 5 + 4 = 24$  cm

- f) Then its perimeter =  $8 + 7 + 7 = 22$  cm

Draw a rectangle with the same perimeter. Shows the lengths of its sides on the drawing



- (2) a) The perimeter =  $4 + 4 + 4 + 4 + 4 + 4 + 3 + 3 + 3 + 3 + 3 + 3 = 36$  cm  
b) The area =  $(4 \times 3) \times 6 = 72$  Sq cm

- (3) a)   
b)  $(7 + 4) \times 2 = 22$  cm  
c)  $(5 + 4) \times 2 = 18$  cm  
d)  $7 + 5 + 4 + 5 + 7 + 4 = 32$  cm  
or  $(12 + 4) \times 2 = 32$  cm  
e)  $(7 \times 4) + (5 \times 4) = 28 + 20 = 48$  Sq cm

- (4) Find the area and the perimeter :

a)

The perimeter  
=  $8 + 6 + 4 + 3 + 4 + 3$   
= 28 cm

The area  
=  $(4 \times 3) + (6 \times 4)$   
=  $12 + 24 = 36$  cm

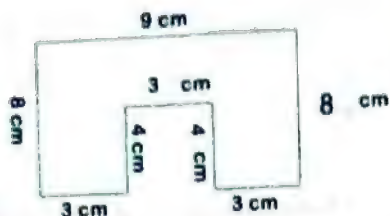




b)

The perimeter =

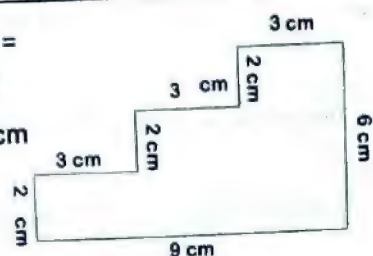
$$9 + 8 + 3 + 4 + 3 + 4 + 3 + 8 = 42 \text{ cm}$$



The area =  $(8 \times 3) + (4 \times 3) + (8 \times 3)$   
 $= 24 + 12 + 24 = 60 \text{ Sq cm}$

c) The perimeter =

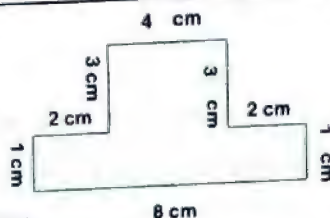
$$6 + 9 + 2 + 3 + 2 + 3 + 2 + 3 = 30 \text{ cm}$$



The area =  $(6 \times 3) + (4 \times 3) + (3 \times 2)$   
 $= 18 + 12 + 6 = 36 \text{ Sq cm}$

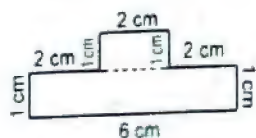
d) The perimeter =

$$8 + 1 + 2 + 3 + 4 + 3 + 2 + 1 = 24 \text{ cm}$$



The area =  $(8 \times 1) + (4 \times 3)$   
 $= 8 + 12 = 20 \text{ Sq cm}$

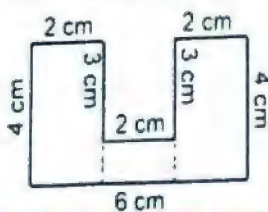
(5) The area =  $(6 \times 1) + (2 \times 1)$   
 $= 6 + 2 = 8 \text{ Sq cm}$



(6) The area =

$$(4 \times 2) + (2 \times 1) + (4 \times 2)$$

$$= 8 + 2 + 8 = 18 \text{ Sq cm}$$



### Sheet (3)

First : Choose the correct answer :

- a) 36      b) 8      c) 7 000  
 d) 40      e) >

Second : Complete the following :

- a) 3, 7, 21+35 = 56      b) 6 + 6 + 6 + 6  
 c) 74 999      d)  $\frac{7}{7}$       e) 3

Third : Answer the following :

The perimeter =  $8 + 4 + 6 + 3 + 2 + 1$   
 $= 24 \text{ cm}$

- a) The area =  $(6 \times 4) + (2 \times 1)$   
 $= 24 + 2 = 26 \text{ Sq cm}$   
 b)  $12 \times 4 = 48$  batteries

### Lesson (4)

(1) Complete the following table :

Animal house	Monkey	The elephant	giraffe	The lion	The bear	Zebra
The perimeter	14	22	20	16	12	16
The area	10	18	21	16	8	12

(2) Complete using ( $<$ ,  $=$  or  $>$ )  
 a)  $<$       b)  $>$       c)  $<$       d)  $<$       e)  $>$

(3) Complete the following :

- a) elephant      b) bear      c) giraffe      d) bear  
 e)  $22 - 20 = 2$       f)  $16 - 10 = 6$   
 g)  $16 - 12 = 4$       h)  $20 - 16 = 4$

(4)

a)

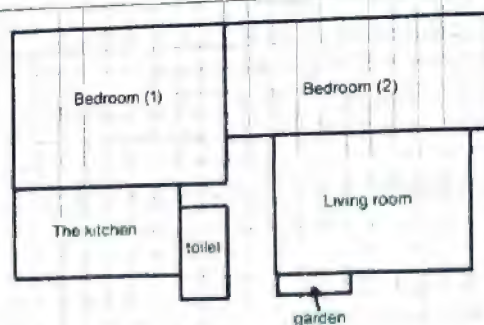


b)



### MY DREAM HOUSE

The name of the room	Length (length unit)	Width (width unit)	Perimeter (length unit)	The Area (square units)
Bedroom (1)	9	7	32	63
Bedroom (2)	11	5	32	55
Living room	8	6	28	48
The kitchen	7	4	22	28
The toilet	4	2	12	8
The garden	3	1	8	3



(1) Complete the following :

- a) Bedroom (1)      b) Bedroom (1) & (2)  
 c) toilet      d) toilet  
 e)  $63 - 48 = 15$       f)  $22 - 12 = 10$

(2) Complete using ( $<$ ,  $=$  or  $>$ )

- a)  $>$       b)  $>$       c)  $>$

(3) Complete using ( $<$ ,  $=$  or  $>$ )

- a)  $=$       b)  $>$       c)  $>$

### Sheet (4)

First : Choose the correct answer :

- a) 15      b) 20      c) Three fifths      d)  $>$       e) 77 752

Second : Complete the following :

- a)  $(8+7) \times 2 = 30$       b) 9      c) 9      d) 18      e) 8, 12, 16

Third : Answer the following :

- a) 1) 5 000      2) 3437      3)  $\frac{6}{7}$       4)  $\frac{5}{9}$

b) 07:25



9:25

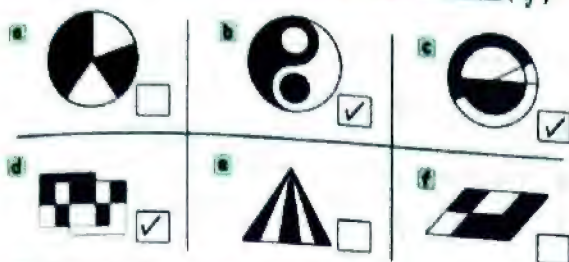




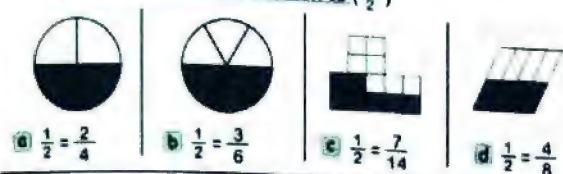
## Chapter ( 6 )

### Lesson ( 1 )

1 Put a sign (✓) next to the shape that represents  $(\frac{1}{2})$



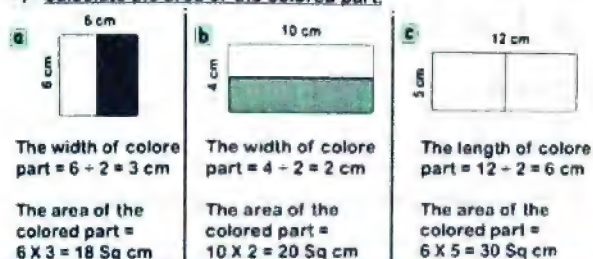
2 Shade half of each shape below and then, write the equivalent fraction to  $(\frac{1}{2})$



3 Shade half of each of the following shapes in different ways.

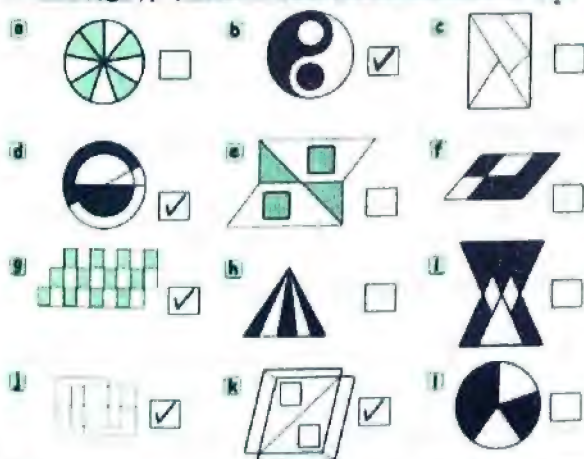


4 Calculate the area of the colored part:

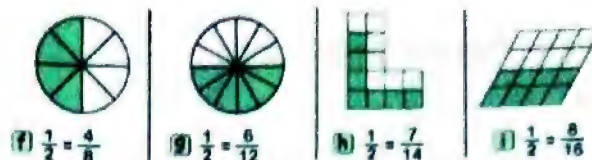
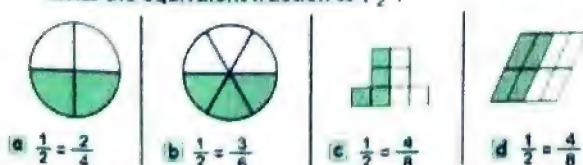


### Homework

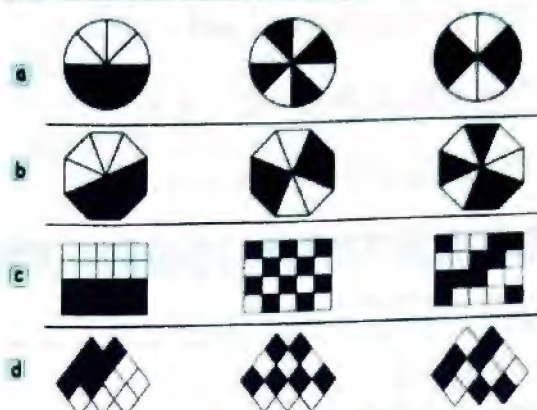
1 Put a sign (✓) next to the shape that represents  $(\frac{1}{2})$



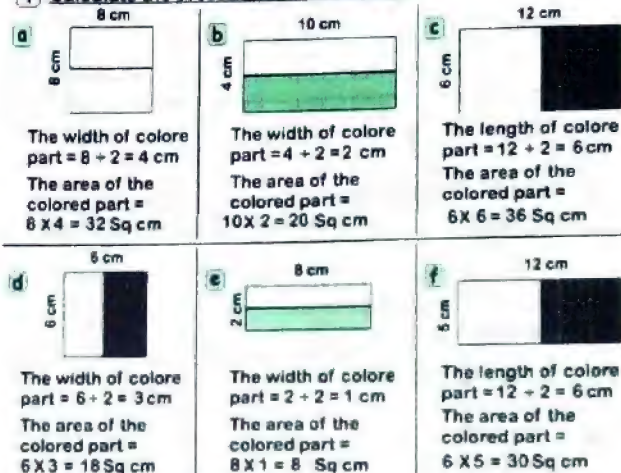
2 Shade half of each shape below and then, write the equivalent fraction to  $(\frac{1}{2})$



3 Shade half of each of the following shapes in different ways.



4 Calculate the area of the colored part:

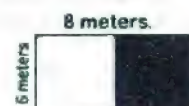


5 The area of the all field

$$= 8 \times 6 = 48 \text{ Sq meters}$$

The area of  $\frac{1}{2}$  of the garden

$$= 48 \div 2 = 24 \text{ Sq meters}$$

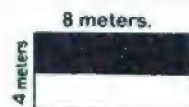


6 The area of the wall

$$= 8 \times 4 = 32 \text{ Sq meters}$$

The area of of the wall

$$= 32 \div 2 = 16 \text{ Sq meters}$$



7 The area of the paper

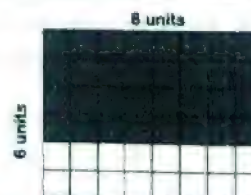
$$= 8 \times 6 = 48 \text{ Square units}$$

$$48 - 32 = 16 \text{ Sq units}$$

Ola can wrap one present

It will have 16 square units

remaining



### Sheet ( 1 )

First : Choose the correct answer :

- a)  $5 \times 6$  b) + c) 6  
d) 6 e) 1

Second : Complete the following :

- a) 20 b)  $8, 70 + 56 = 126$  c) 10 234  
d) 15 e)  $6 + 6 + 6 + 6 + 6 + 6$



Third : Answer the following :

a)  $\frac{3}{8}, \frac{3}{7}, \frac{3}{5}, \frac{3}{4}$

The area of the rectangle =  $8 \times 2$   
= 16 Sq cm

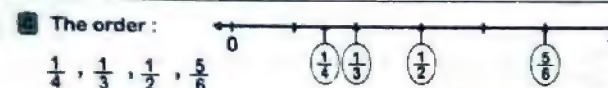
b) The area of colored part =  $16 \div 2 = 8$   
Sq cm

c) The area of the road =  $3 \times 2$   
= 6 Sq meter

The area of the paved part  
=  $6 \div 2 = 3$

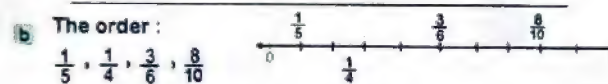
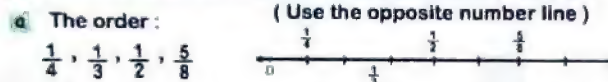
## Lesson (2)

1 Place the following fractions



2 Arrange the following numbers in an ascending order :

( Use the opposite number line )



3 Mark 3 different fractions less than  $\frac{1}{2}$  on the number line



4 Mark 3 different fractions more than  $\frac{1}{3}$  on the number line



5 Look at the number line below. Then, find at least three other equivalent fractions that could be placed on the number line and write them :



## Homework

1 Place the following fractions on the number line, then write them in ascending order



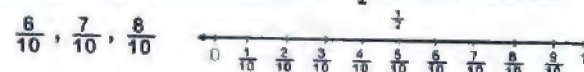
2 Arrange the following numbers in an ascending order :  
( Use the opposite number line )



a Mark 3 different fractions less than  $\frac{1}{2}$  on the number line



b Mark 3 different fractions more than  $\frac{1}{2}$  on the number line



c Mark 3 different fractions more than  $\frac{1}{3}$  on the number line



d Mark 3 different fractions less than  $\frac{2}{3}$  on the number line



e Mark 3 different fractions more than  $\frac{1}{4}$  on the number line



4  $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}$

5  $\frac{1}{3}, \frac{1}{2}, \frac{2}{3}$

6  $\frac{2}{6}, \frac{4}{6}, \frac{6}{6}$



## Sheet ( 2 )

First : Choose the correct answer :

- a) 800                      b) 20                      c)  $\infty$   
d) Commutative                      e) 7

Second : Complete the following :

- a) 24, 6, 3, 7      b) Length X width  
c) 3, 5      d) 1      e) 40

Third : Answer the following :

- a) 1) 5 950    2) 7 739    3) 54    4) 4
- b)  $\frac{1}{6} \cdot \frac{1}{4} \cdot \frac{4}{8} \cdot \frac{2}{3}$
- c) 1)  $5 \times 8 = 40$     2)  $40 \div 5 = 8$   
3)  $8 \times 5 = 40$     4)  $40 \div 8 = 5$

## Lesson (3)

**(1) Complete the following :**

- a) 25 611  
b) Seven hundred thousand , six hundred and eighteen  
c) 775 853  
d) 98 756  
e) 74  
f)  $7000+800+50+6$   
g) 5 , 552 , 9 , 1  
h) 36 300  
i) 700 249  
j) 900 000  
k) 74 999  
l) 3157  
m) 15 199  
n) Hundreds  
o) 700 000  
p) 70 000  
q) 20  
r) 99 999  
s) 100 000  
t) 76320 , 20367

(1) Complete the following table :

- 400 000 , Hundred thousands
- 60 000 , Ten thousands
- 0 , Thousands
- 70 , Tens
- 0 , Ones
- 900 , Hundreds

**(3) Complete**

- a) 75 430 , 30 457  
b) 888 854 , 444 458

(4) Complete using (  $<$  ,  $=$  or  $>$  )

- a) <                      b) <                      c) >                      d) <  
e) =                      f) <                      g) =                      h) <                      i) <

## Homework

(1) Choose the correct answer :

- |            |            |              |
|------------|------------|--------------|
| a) 700 070 | b) 7 425   | c) 70 009    |
| d) 1 999   | e) 20 750  | f) 6000      |
| g) 800     | h) 3000    | i) 98 765    |
| j) 102 345 | k) 99 999  | l) 1 000     |
| m) 3 000   | n) 800 000 | o) thousands |

(1) Complete the following

- a) 205 611    b) **Seven hundred thousand, six hundred and eight**    c) 775 853  
d) 998 756    e) 74

- |                          |            |
|--------------------------|------------|
| f) 77 000 + 800 + 50 + 6 | i) 70 249  |
| g) 5,552,9.1             | h) 36 300  |
| j) 100 000               | k) 699 999 |
| m) 105 199               | l) 31 561  |
| n) Ten thousands         |            |
| o) 70 000                | p) 999 999 |
| q) 100 000               |            |
| r) 99 999                | s) 10 000  |
|                          | t) 76 320  |
|                          | 20 367     |

(3) Complete the following table :

- a) 400 000 , Hundred thousands
- b) 60 000 , Ten thousands
- c) 0 , Thousands
- d) 70 , Tens
- e) 0 , Ones

(4) Complete using  $<$ ,  $=$  or  $>$ :

- |      |      |      |
|------|------|------|
| a) > | b) < | c) < |
| d) < | e) > | f) < |
| g) > | h) > | i) < |
| j) < | j) < | k) < |

**(5) Arrange each of the following in increasing order :**

- a) The ascending order :  
20368 , 32023 , 54987 , 75023 , 98123  
The descending order  
98123 , 75023 , 54987 , 32023 , 20368
- a) The ascending order :  
500368, 500386, 500638, 500683, 500863  
The descending order  
500863, 500683, 500638, 500386, 500368
- (6) 5764
- (7)  $5940 - 4210 = 1730$  LE
- (8)  $137 + 525 = 662$  books  
 $2475 - 662 = 1813$  books

## Sheet ( 3 )

First : Choose the correct answer :

- a) 102 345      b) 303 303      c) 0  
d) 210 000      e) 25 796

Second : Complete the following :

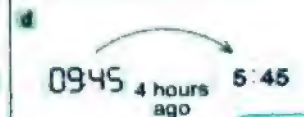
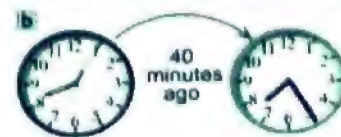
- a) 777 753                      b) 250 000  
c) Ten thousands              d) 502 287    e) 4, 7, 88

Third : Answer the following :

- a) 1) 1 099    2) 3 891  
b) 200 , 999 , 6000 , 10 000 , 50 000  
c)  $545 + 235 = 780$  LE

## Lesson ( 4 )

1. Draw the analog clock hands or write the time on digital clock to show the time :





## (2) Calculate the elapsed time:

- a) 2 hours      b) 3 hours  
c) 30 minutes      d) 40 minutes



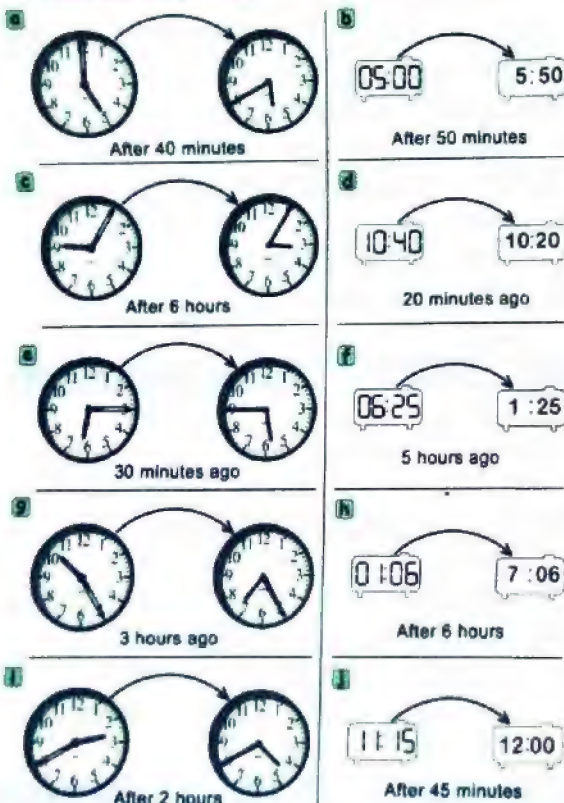
Elapsed time : 5 hours and 30 minutes

5 How much time has elapsed?

- a) 30 minutes  
b) 4 hours and 30 minutes  
c) 6 hours and 15 minutes

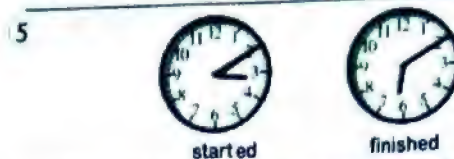
## Homework

1 Draw the analog clock hands or write the time on digital clock to show the time:



(2) Calculate the elapsed :

- a) 2 hours      b) 30 minutes  
c) 4 hours      d) 40 minutes  
e) 3 hours      f) 4 hours  
g) 18 minutes      h) 37 minutes  
i) 30 minutes      j) 15 minutes
- (3)  $20 + 5 + 10 + 30 = 65$   
He haven't enough



(7) How much time has elapsed ?

- a) 30 minutes  
b) 1 hour and 30 minutes  
c) 5 hours  
d) 4 hours and 50 minutes  
e) 9 hours and 5 minutes  
f) 6 hours and 15 minutes
- (8) a)  $22 + 20 + 18 = 60$  minutes = 1 hour  
b)  $15 + 20 + 11 = 46$  minutes  
c)  $60 - 46 = 14$  minutes

(9)  $15 \text{ minutes} + 1 \text{ hour and a half} + 20 \text{ minutes}$   
 $= 2 \text{ hours and } 5 \text{ minutes}$

3:30

5:35

## Sheet (4)

First : Choose the correct answer :

- a) 102 345      b) 1000      c) 205  
d) 6      e) 9000

Second : Complete the following :

- a) 400      b) 2 hours  
c) 70 099      d) 15      e) 4, 6

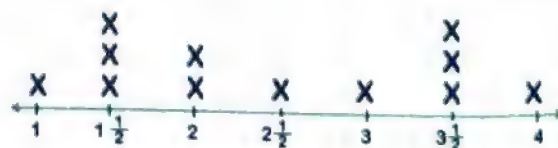
Third : Answer the following :

- a) 6:00, 7:10, 1 hour and 10 min.  
b) 42159, 42195, 42519, 42951, 52 915

## Lesson (5)

1 a Use the data to complete the line plot below.

Title : Height of Plants



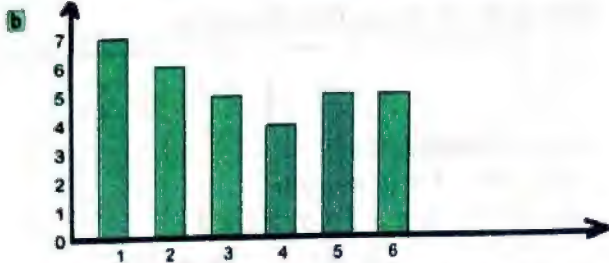
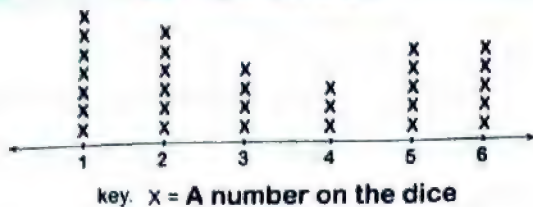
Key : x = One plant

- b 4      c 4      d  $1 \frac{1}{2}$  and  $3 \frac{1}{2} = 12$   
f No, the most plants were shorter than 3  
( 7 plants )



2

title rolling a dice

c 1 d 4 e 14 f  $16 - 14 = 2$ 

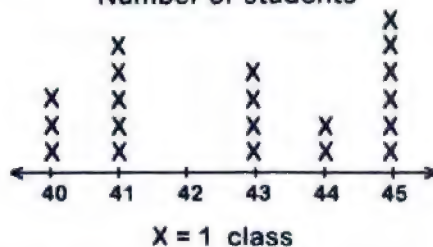
## Homework

1 a Complete the following table :

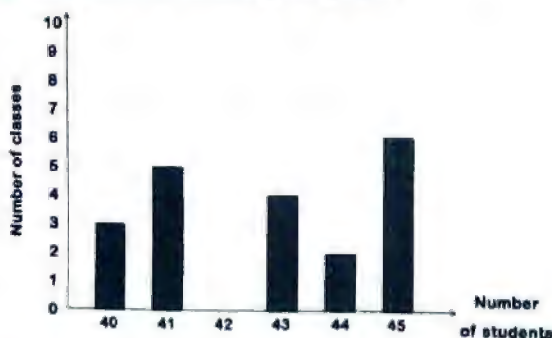
The number of students	40	41	42	43	44	45
The number classes	3	5	0	4	2	6

b Create a line plot using these data :

Number of students



c Complete the following bar graph .

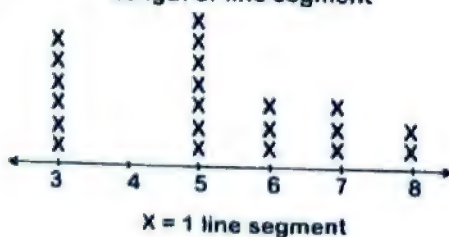


2 a Complete the following table :

The length	3	4	5	6	7	8
the number of line segments	6	0	7	3	3	2

b Create a line plot using these data.

Length of line segment



3 Answer the following :

a 7 b 3 c 6 d 4 e bus f  $7 - 6 = 1$ 

4 Complete the following table :

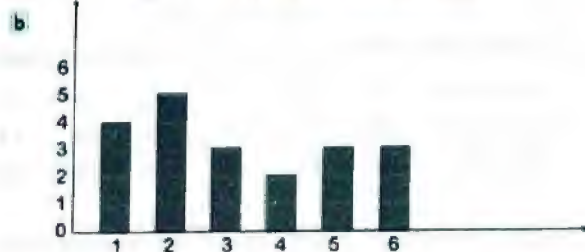
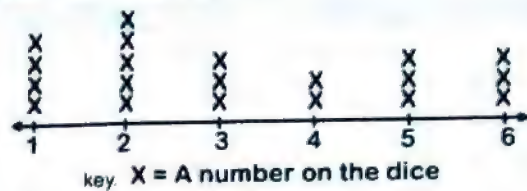
Favorite Fruit	Apples	Oranges	Bananas	Kiwis	Pears
Number of children	6	4	7	5	3

Answer the questions:

a 4 b  $6 - 3 = 3$  c  $5 + 6 + 4 = 15$ 

d bananas e pears

5 a title Rolling a dice

c 2 d 4 e 10 f  $10 - 10 = 0$ 

## Sheet ( 5 )

First : Choose the correct answer :

a) 7 X 9 b) 40 503 c) 2  
d) 102 345 e) <

Second : Complete the following :

a) Thousands b) 45 c) 45  
d) 8 , 5 e) 4

Third : Answer the following :

a) 1) 560 2) 9 3)  $\frac{6}{7}$  4)  $\frac{2}{5}$ b)  $\frac{1}{6}$  ,  $\frac{1}{2}$  ,  $\frac{2}{3}$  ,  $\frac{5}{6}$ c) The area =  $8 \times 4 = 32$  Sq cm  
The perimeter =  $(8 + 4) \times 2 = 24$  cm

## Lesson ( 6 )

(1) Find the area and the perimeter :

a) 18 , 20 b) 28 , 30  
c) 15 , 18 d) 11 , 24

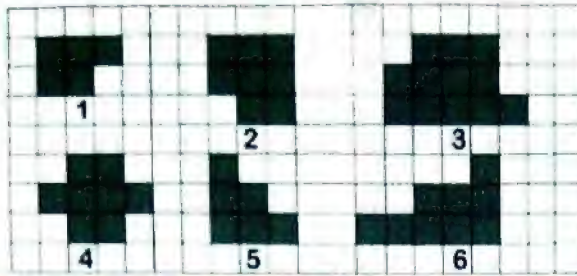
2 Find the area and the perimeter of the following shapes :

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	10	14	18	18	24	18
The area	6	8	13	12	20	10



- 3 Using the given areas, draw irregular shapes, then find the perimeter of each

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	10	12	16	14	12	16
The area	5	8	12	10	6	9



### Homework

- (1) Find the area and the perimeter :

- a) 13 , 18      b) 17 , 26  
c) 11 , 16      d) 11 , 24  
e) 14 , 16      f) 19 , 28  
g) 12 , 22      h) 14 , 22

- 2 Find the area and the perimeter of the following shapes :

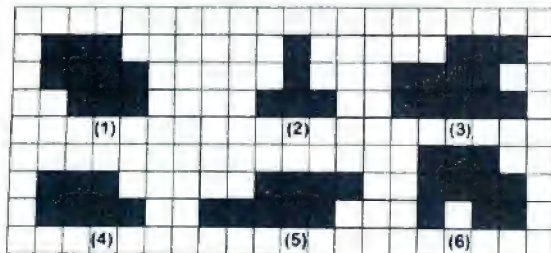
The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	10	16	18	10	20	14
The area	6	12	13	18	15	20

- 3 Find the area and the perimeter of the following shapes :

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	14	16	24	20	20	22
The area	9	10	14	17	20	16

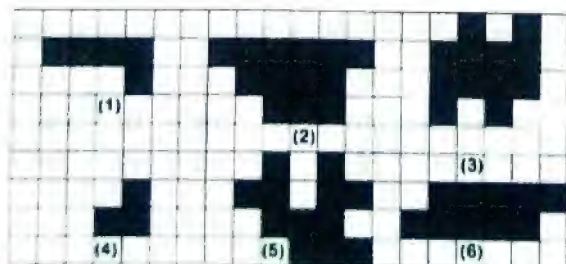
- 4 Using the given areas, draw irregular shapes, then find the perimeter of each

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	14	12	18	12	16	16
The area	10	5	12	7	9	10



- 5 Using the given perimeters, draw irregular shapes, then find the area of each

The Shape	(1)	(2)	(3)	(4)	(5)	(6)
The perimeter	12	18	20	8	24	16
The area	5	13	12	3	12	10



First : Complete the following ::

- a) Ten thousands      b) 75 320  
c) 74 052      d)  $(7 \times 4) + (7 \times 9) = 28 + 63 = 91$   
e)  $\frac{3}{6}$       f) 5 , 7      g) 12      h)  $\frac{3}{7}$   
i) 18      j) 10 , 56 , 560

Second : Answer the following :



- b) 40 minutes  
c)  $27 \div 3 = 9$  sweets  
d)  $3 \times 2 \times 4 = (3 \times 2) \times 4 = 6 \times 4 = 24$  books



- f) Width =  $(22 \div 2) - 7 = 11 - 7 = 4$  cm  
Area =  $7 \times 4 = 28$  Sq cm

- g) 45210, 45201, 45120 , 45102 , 45012



## GENERAL EXERCISES ON Multiplication & Division

**First** Choose the correct answer

- |          |        |          |   |          |    |          |    |
|----------|--------|----------|---|----------|----|----------|----|
| <b>a</b> | 6 X 5  | <b>d</b> | 6 | <b>g</b> | 8  | <b>j</b> | 5  |
| <b>b</b> | 2 X 10 | <b>e</b> | 7 | <b>h</b> | 24 | <b>k</b> | 5  |
| <b>c</b> | 4 X 4  | <b>f</b> | 8 | <b>i</b> | 21 | <b>l</b> | 11 |
|          |        |          |   |          |    | <b>m</b> | 84 |

**Second** Complete the following

- a 27      b 4      c 7  
d 8      e 15      f 4  
g  $6 + 6 + 6$       h  $4 + 4 + 4 + 4$   
i 9, 7      j 6  
k  $10, 40 + 28 = 68$   
l 9, 6      m 9, 8

**Third** Answer the following

**1** Use the associative property to find :

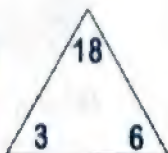
- a**  $(5 \times 2) \times 8 = 10 \times 8 = 80$   
**b**  $8 \times (9 \times 1) = 8 \times 9 = 72$   
**c**  $(4 \times 5) \times 10 = 20 \times 10 = 200$   
**d**  $(6 \times 8) \times 10 = 48 \times 10 = 480$

**2** Use the distributive property to find :

- ☐ a  $3, 48 + 24 = 72$
- ☐ b  $6, 6 \times 5, 60 + 30 = 90$
- ☐ c  $7 \times 13, 49 + 42 = 91$
- ☐ d  $5 \times 14, 6, 8, 70$

**3** Use 6 and 3 to complete

- a**  $3 \times 6 = 18$     **c**  $18 \div 3 = 6$   
**b**  $6 \times 3 = 18$     **d**  $18 \div 6 = 3$



- 4  $3 \times 5 \times 4 = 3 \times (5 \times 4)$   
 $= 3 \times 20 = 60$  oranges

- 5  $(3 \times 8) + (3 \times 5) = 24 + 15$   
 $= 39$  oranges

- 6**  $24 \div 3 = 8$  sweets

## GENERAL EXERCISES ON Perimeter & Area

**First** Choose the correct answer

- |             |            |             |
|-------------|------------|-------------|
| <b>a</b> 24 | <b>e</b> 7 | <b>i</b> 4  |
| <b>b</b> 22 | <b>f</b> 6 | <b>j</b> 15 |
| <b>c</b> 81 | <b>g</b> 4 | <b>k</b> 8  |
| <b>d</b> 15 | <b>h</b> 7 | <b>l</b> 12 |

**Second Answer the following**

**1** Complete the following table :

	The side length	The perimeter of the square	The area of the square
a	6 cm	$6 \times 4 = 24$ cm	$6 \times 6 = 36$ Sq cm
b	8 cm	32 cm	$8 \times 8 = 64$ Sq cm
c	5 cm	$5 \times 4 = 20$ cm	25 Sq cm

**2** Complete the following table :

	The length	The width	The perimeter of the rectangle	The area of the rectangle
a	7cm	3cm	$(7 + 3) \times 2 = 20 \text{ cm}$	$7 \times 3 = 21$ square unit
b	7cm	4cm	22 cm	$7 \times 4 = 28$ square unit
c	9cm	5cm	28 cm	$9 \times 5 = 45$ square unit
d	10cm	3cm	$(10 + 3) \times 2 = 26 \text{ cm}$	30 Sq cm
e	8cm	6cm	$(8 + 6) \times 2 = 28 \text{ cm}$	48 Sq cm

3 Complete the following table :

The perimeter	20 cm	24 cm	14 units
The area	21 Sq cm	36 Sq cm	9 Sq units

**4** Calculate the perimeter of each of the following:

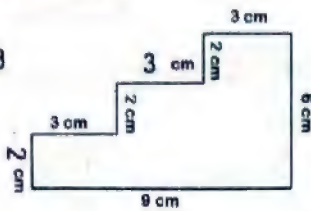
- |   |   |
|---|---|
| <p><b>a</b> The perimeter</p> $6+5+5+4 = 20 \text{ cm}$ | <p><b>b</b> The perimeter</p> $5+4+3+4+3=19 \text{ cm}$ |
|---|---|



# 5 Find the area and the perimeter

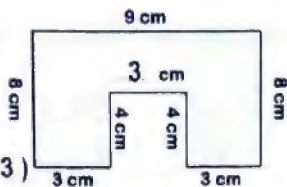
- a (1) The perimeter =  
 $9 + 6 + 2 + 3 + 2 + 3$   
 $+ 2 + 3 = 30 \text{ cm}$

- (2) The area =  
 $(3 \times 2) + (4 \times 3)$   
 $+ (6 \times 3) = 6 + 12 + 18 = 36 \text{ Sq cm}$

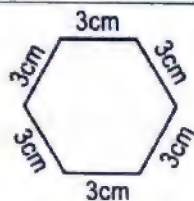


- b (1) The perimeter =  
 $9 + 8 + 8 + 3 + 4$   
 $+ 3 + 4 + 3 = 42 \text{ cm}$

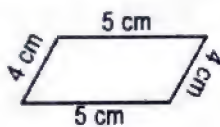
- (2) The area =  
 $(8 \times 3) + (4 \times 3) + (8 \times 3)$   
 $= 24 + 12 + 24 = 60 \text{ Sq cm}$



6



Hexagon



Quadrilateral

- 7 Width =  $(28 \div 2) = 8 = 14 - 8 = 6 \text{ meters}$

# 8 Find the area and the perimeter

The Shape	(1)	(2)	(3)	(4)
The perimeter	16	18	14	20
The area	12	12	10	12

# 9 complete the table :

The Shape	(1)	(2)	(3)	(4)
The perimeter	10	8	12	10
The area	5	4	12	4



- 10 Calculate the area of the colored part

- a Width =  $4 \div 2 = 2 \text{ cm}$   
The area =  $8 \times 2 = 16 \text{ Sq cm}$

- b Width =  $6 \div 2 = 3 \text{ cm}$   
The area =  $6 \times 3 = 18 \text{ Sq cm}$

# GENERAL EXERCISES ON Fractions

## First Choose the correct answer

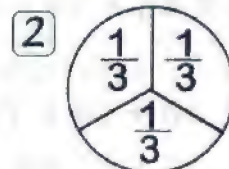
- a  $\frac{3}{5}$  b Three sixths c  $\frac{3}{7}$   
d  $>$  e  $<$  f  $=$  g  $<$  h  $>$   
i 6 j 30 k 12 l 5 m  $\frac{2}{4}$

## Second Complete the following

- a 3, 3 g  $\frac{4}{5}$  m 3  
b 6 h  $\frac{3}{7}$  n 6, 9, 12  
c 15 i  $\frac{1}{3}$  o  $\frac{5}{8}$   
d 10 j  $\frac{3}{8}$  p  $\frac{3}{7}$   
e 6, 8 k  $\frac{5}{6}$  q  $\frac{3}{5}$   
f 4, 6 l  $\frac{1}{4}$  r  $\frac{7}{10}$

## Third Answer the following

- 1  $\frac{5}{8}$ ,  $\frac{3}{8}$



- 3  $\frac{1}{2}$  of the pizza

- $\frac{1}{5}$  of the pizza



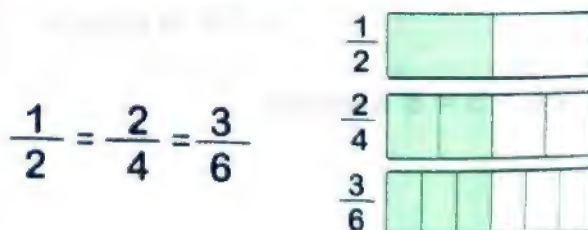
$>$



Ahmed ate the most

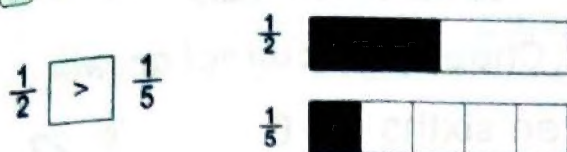
- 4  $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$  of a candy

- 5 Use the fraction Models to complete :





6 complete using ( $<$ ,  $=$  or  $>$ )

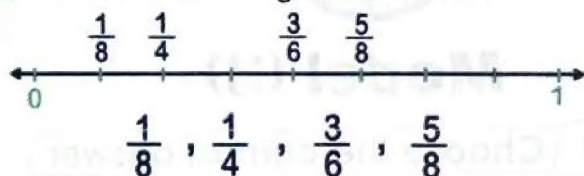


7 Arrange the following fraction in an ascending order:

a The order :  $\frac{1}{5}$ ,  $\frac{2}{5}$ ,  $\frac{3}{5}$ ,  $\frac{4}{5}$

b The order :  $\frac{1}{8}$ ,  $\frac{1}{5}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$

c Use the following number line :

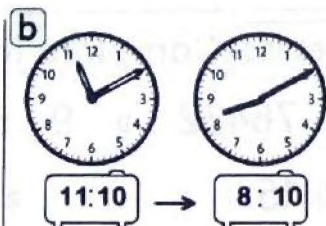


## GENERAL EXERCISES ON The Time

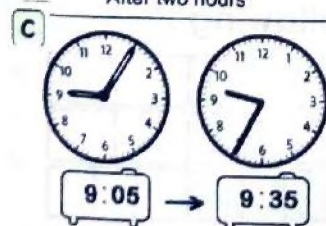
1



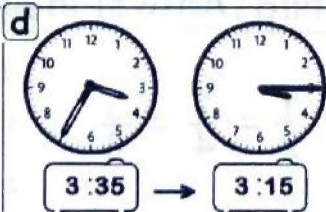
After two hours



3 hours ago



After 30 minutes



20 minutes ago

2 Calculate the elapsed time

a 3 hours      b 25 minutes

c 4 Hours      d 30 minutes

3 How much time has elapsed ?

a 30 minutes

b 45 minutes

c 1 hour and 15 minutes

d 5 hours and 15 minutes

4



Wakes up



Leaves home



Comes home again

5



Elapsed time : 3 hours and 30 minutes

6

3:30

Started

7:30

Finished

## GENERAL EXERCISES ON Numbers up to 999 999

First Choose the correct answer

a 950 202

b 72 076

c 28 574

d 7 000

e 98 765

f 69 999

g 7 000

h  $<$

i  $>$

j  $=$

Second Complete the following

a Seventy thousand, five hundred and two

b Hundreds      c 10 000      d 46 000

e 78, 2, 4, 5      f 54      g 77 723

h  $90000 + 8000 + 200 + 50 + 3$

i 63 000      j 47 409      k 75 572

l 54 423      m 12 368



### Third Answer the following

1 Arrange the following numbers

a The ascending order :

45 364 , 45 436 , 45 462 , 45 642

b The descending order :

45 642 , 45 462 , 45 436 , 45 364

2 They have =  $625 + 265 = 890$

3 The money that she needs =  
 $4250 - 2450 = 1800$  LE

### Model (1)

First Choose the correct answer

- a 24      b  $\frac{3}{5}$       c  $6 \times 5$   
d 950 202      e  $21 \times 10$

Second Complete the following

- a 4 , 6      b 9 , 7      c Hundreds  
d 12      e 2 Hours and 15 min.

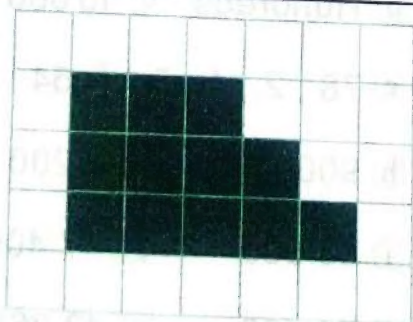
Third Answer the following

- a ①  $3 \times 6 = 18$  ③  $18 \div 6 = 3$   
②  $6 \times 3 = 18$  ④  $18 \div 3 = 6$



b The number of pages  
=  $2 \times 50 = 100$  Pages

c The  
perimeter  
= 16 units



### Model (2)

First Choose the correct answer

- a Three sixths      b 6      c 22  
d  $7 \times 12$       e 99 999

Second Complete the following

- a 10      b  $4 + 4 + 4 + 4$   
c 8      d hundreds      e  $3, 7, 18 + 42 = 60$

Third Answer the following

- a  $\frac{5}{6} - \frac{2}{6} = \frac{3}{6}$   
b 45 023 , 45 203 , 45 230 , 45 302  
c



### Model (3)

First Choose the correct answer

- a  $4 \times 4$       b =      c 81  
d 56 100      e  $30 \times 4$

Second Complete the following

- a 76432      b 9 , 6      c 3  
d 15      e 8 018

Third Answer the following

- a  $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$
- |               |  |
|---------------|--|
| $\frac{1}{2}$ |  |
| $\frac{2}{4}$ |  |
| $\frac{3}{6}$ |  |

b 1 Hour and 15 minutes

c  $3 \times 5 \times 4 = 3 \times (5 \times 4)$   
=  $3 \times 20 = 60$  oranges



## Model (4)

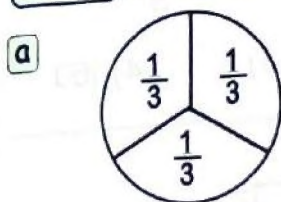
**First** Choose the correct answer

- a 15      b <      c 84  
d 405      e  $9 \times 3 \times 5$

**Second** Complete the following

- a 6, 9, 12      b 6      c 9 Sq units  
d 566 015      e  $7 + 7 + 7 + 7$

**Third** Answer the following



- b  $\frac{2}{3}, \frac{2}{5}, \frac{2}{6}, \frac{2}{9}$

- c Find the result :  
4790, 6822, 48, 4

## Model (5)

**First** Choose the correct answer

- a 5      b  $\frac{3}{7}$       c 6  
d 6      e 40 000

**Second** Complete the following

- a 10      b 4      c Ones  
d 75 100      e  $10, 9, 27 \times 10 = 270$

**Third** Answer the following

- a  $6 + 5 + 5 + 4 = 20$  cm

- b
- |         |          |
|---------|----------|
| 6 : 30  | 9 : 30   |
| Started | Finished |

- c  $(3 \times 8) + (3 \times 5)$   
 $= 24 + 15 = 39$  oranges tree

## Model (6)

**First** Choose the correct answer

- a 4      b >      c 24  
d 900 009      e 2

**Second** Complete the following

- a 4 unit      b 6, 8      c 20357  
d  $10, 90 + 45 = 135$       e  $6 + 6 + 6$

**Third** Answer the following

- a  $\frac{1}{6} < \frac{1}{3}$
- 

- b  $1120 - 450 = 670$  LE

- c The area =  $6 \times 6 = 36$  Sq cm  
The perimeter =  $6 \times 4 = 24$  cm

## Model (7)

**First** Choose the correct answer

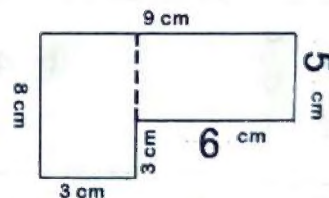
- a 6      b 12      c 25 020  
d 24      e 4

**Second** Complete the following

- a Hundreds      b  $\frac{2}{6}$       c 12  
d 9, 5      e  $\frac{3}{7}$

**Third** Answer the following

- a The perimeter  
 $= 9 + 8 + 5 + 6$   
 $+ 3 + 3 = 34$  cm



- The area  
 $= (8 \times 3) + (6 \times 5)$   
 $= 24 + 30 = 54$  Sq cm

- b 30 minutes

- c  $24 \div 3 = 8$  sweets



## Model (8)

**First** Choose the correct answer

- a 20 305      b 7      c 11  
d 5      e <

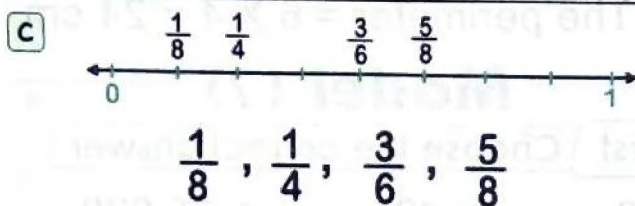
**Second** Complete the following

- a  $\frac{2}{3}$       b 9, 8      c 0  
d 5, 40, 80      e 7

**Third** Answer the following

- a Width =  $(28 \div 2) - 8 = 14 - 8 = 6$  cm

- b 1)  $\frac{5}{9}$       2)  $\frac{5}{8}$       3)  $\frac{1}{4}$



## Model (9)

**First** Choose the correct answer

- a 30      b 7025      c 21  
d 0      e 9 000

**Second** Complete the following

- a  $\frac{4}{6}$       b 4      c 6, 9  
d 4      e 26000

**Third** Answer the following

- a width =  $6 \div 2 = 3$  cm  
The area of colored part  
=  $8 \times 3 = 24$  Sq cm

- b 1) >      2) >      3) <      4) =

- c The length of each part =  $12 \div 4 = 3$  m  
The equivalent fraction =  $\frac{3}{12} = \frac{1}{4}$

## Model (10)

**First** Choose the correct answer

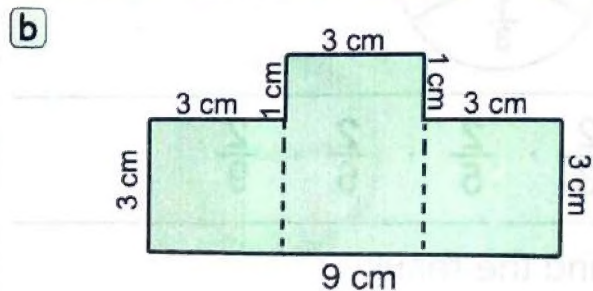
- a >      b Hundreds      c 5  
d 70 000      e 90

**Second** Complete the following

- a  $(7 + 3) \times 2 = 20$  cm      b 57 523  
c  $10, 40 + 28 = 68$       d 5      e 5

**Third** Answer the following

- a 1) 80100      2)  $\frac{2}{5}$       3) 8      4) 160



The area  
=  $(3 \times 3) + (4 \times 3) + (3 \times 3)$   
=  $9 + 12 + 9 = 30$  Sq cm

